Significant Plan Change to Virginia Alert and Notification Exercise

After Action Report/Improvement Plan

Exercise Date – June 28, 2022

Radiological Emergency Preparedness (REP) Program

FEMA

Published December 2, 2022

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Virginia Alert and Notification Exercise

After Action Report/Improvement Plan

Published December 2, 2022

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EXECUTIVE SUMMARY

On June 28, 2022, an exercise of a Significant Plan Change to the Commonwealth of Virginia's state plan was conducted and evaluated by the U.S. Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), Region 3. Specifically, the plan change involved replacing the primary and backup alerting methods for the North Anna Power Station (NAPS) and Surry Power Station (SPS) 10-mile plume exposure pathway emergency planning zones from the existing network of sirens, owned and maintained by Dominion Energy, and replacing that with the FEMA Integrated Public Alert and Warning System (IPAWS). FEMA IPAWS will send a Wireless Emergency Alert (WEA) to a user's cellular phone followed by an instructional message as well as activate the Emergency Alert System (EAS). The changes also included replacing the backup alert and notification system, from route alerting (a system of police or fire vehicles driving in areas of a failed siren and announcing emergency information through a public address loudspeaker) to a separate electronic notification system called Everbridge Resident Connect. These two emergency planning zones currently have identified areas where there is no alerting system. In these primary alerting and exception areas, alerting is achieved by route alerting with police and/or fire vehicles notifying the population through a public address system loudspeaker in their vehicle.

A Significant Plan change is defined in *44 CFR 350.14 Amendments to State Plans:*

(a) The State may amend a plan submitted to FEMA for review and approval under § 350.7 at any time during the review process or may amend a plan at any time after FEMA approval has been granted under § 350.12. A State must amend its plan in order to extend the coverage of the plan to any new nuclear power facility which becomes operational after a FEMA approval or in case of any other significant change. The State plan shall remain in effect as approved while any significant change is under review.

(b) A significant change is one which involves the evaluation and assessment of a planning standard, or which involves a matter which, if presented with the plan, would need to have been considered by the Deputy Administrator for the National Preparedness Directorate in making a decision that State or local plans and preparedness are:

  (1) Adequate to protect the health and safety of the public living in the vicinity of the nuclear power facility by providing reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency; and

  (2) Capable of being implemented.

(c) A significant change will be processed in the same manner as if it were an initial plan submission. However, the Regional Administrator may determine that certain procedures, such as holding a public meeting or a complete exercise, would be unnecessary. The existing FEMA approval shall remain in effect while any significant changes are under review.

(d) Changes, such as a change in a telephone number, that are not significant as defined in paragraphs (b) and (c) of this section, but are necessary to maintain currency of the plan, should be forwarded to the Regional Administrator.

Under the authorities provided to the FEMA Region 3 Regional Administrator under 44 CFR 350.14 (c), an exercise of the new alert and notification systems (both primary and back-up), and a public meeting was held prior to forwarding a recommendation to the Deputy Administrator for Resilience. On June 28, 2022, FEMA Region 3 executed an exercise to test the ability of VDEM to

implement the significant plan change in accordance with required design objectives. The exercise was supported by the FEMA IPAWS Technical Support Services Facility (formerly known as the IPAWS Lab).

The purpose of the exercise was for the VDEM to demonstrate reasonable assurance that the public can be notified and alerted during a Nuclear Power Plant (NPP) emergency at either the North Anna Power Station and/or the Surry Power Station. This exercise tested the significant plan change submitted by the Commonwealth of Virginia for alert and notification of the public and transients in the NAPS and SPS EPZs.

In addition to the exercise, a separate field activity was conducted for both the NAPS and SPS 10-mile plume exposure pathway emergency planning zones (EPZs). The field activity involved a FEMA evaluation team deployed to areas approximately 5 and 10 miles from the Nuclear Power Plants (NPPs), in locations selected by the Virginia Department of Emergency Management (VDEM), to validate that receipt of the WEA message could be obtained within the required timeframes (15 minutes within 0-5 miles of the station, and 45 minutes for the entire EPZ). FEMA evaluators were provided a test code from the IPAWS TSSF and utilized both their FEMA-issued cellular device and their personal cellular device so that a variety of cellular providers, as well as make/model cell phones, could be utilized. This included both the primary (FEMA IPAWS-WEA) and backup (Everbridge Resident Connect) methods.

On June 30, 2022, at 5:00 p.m. a public meeting was held to present preliminary findings of the exercise and to solicit input from the public regarding the proposed significant plan change. The public meeting was advertised aggressively in targeted outlets in each EPZ by FEMA Region 3 External Affairs. The public meeting was held in a virtual format to maximize attendance from both EPZs. A total of 67 people attended the public meeting. During the meeting, a total of eight comments were received. Additionally, four email responses to the FEMAR3 News Desk and formal written letters from the City of Williamsburg, the President of William & Mary University, and The Colonial Williamsburg Foundation were received.

The findings in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the FEMA, Region 3 Regional Assistance Committee (RAC) Chair, and approved by FEMA Headquarters. The results of the exercise were utilized by the FEMA Region 3 Regional Administrator in the determination to recommend approval of the ANS significant plan change to the Deputy Administrator for Resilience. This report is provided to the Nuclear Regulatory Commission (NRC) and participating States.

The evaluation of this exercise determined that there were no Level 1 Findings, no Level 2 Findings, and no Plan Issues.

A Level 1 Finding is defined by the FEMA Radiological Emergency Preparedness Program Manual as follows: "An observed or identified inadequacy of organizational performance in an exercise that could cause a determination that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a Nuclear Power Plant (NPP)."

A Level 2 Finding is defined as: "An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety."

Finally, a Plan Issue is: "An observed or identified inadequacy in the offsite response organization's (ORO) emergency plan/implementing procedures, rather than that of the ORO's performance."

FEMA wishes to acknowledge the efforts of the many individuals in the Commonwealth of Virginia. Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Cooperation and teamwork of all the participants were evident during the exercise.

Section 1 of this report entitled "Exercise Overview" presents the "Exercise Planning Team" and the "Participating Organizations."

Section 2, of this report entitled "Exercise Design Summary" includes the "Exercise Purpose and Design", "Exercise Objectives, Capabilities and Activities", and the "Scenario Summary".

Section 3 of this report entitled "Analysis of Capabilities" presents detailed "Exercise Evaluation and Results" information on the demonstration for each jurisdiction or functional entity evaluated in a jurisdiction-based, issue-only format (Evaluation Summaries).

Section 4 of this report entitled "Conclusion" presents a summary of the findings and performance of the evaluated agencies.

The appendices, present supplementary information that is relevant to the exercise:

- Appendix A – Exercise Evaluators and Team leaders. A table listing the evaluator names, organizations, and responsibilities of the evaluators and management.
- Appendix B – Acronyms and Abbreviations. An alphabetized table defining the formal names used in this report.
- Appendix C – Extent of Play (EOP) Agreement (EOPA)

The attachments, present information and documentation that relates to the exercise.

- Attachment 1 - Field Activity EOP
- Attachment 2 - Quick Look Report of Field Activity
- Attachment 3 - FEMA Integrated Public Alert and Warning System (IPAWS) Technical Support Services Facility (TSSF) After Action Report (AAR)
- Attachment 4 – Approval Communications
- Attachment 5 - Timeline

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name
Virginia Alert and Notification Significant Plan Change Exercise

Type of Exercise
Exercise

Exercise Date
June 28, 2022

Program
Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type
Alert and Notification Scenario

1.2 Exercise Planning Team Leadership

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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Virginia Alert and Notification Significant Plan Change Exercise:

State Jurisdiction

Commonwealth of Virginia

- Virginia Department of Emergency Management (VDEM)
  - Virginia Situational Awareness Unit

Federal Organizations

- Federal Emergency Management Agency (FEMA)
  - FEMA Integrated Public Alert and Warning System (IPAWS) Technical Support Services Facility (TSSF)

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The purpose of this exercise was to evaluate player actions against response plans that have been submitted for review and approval by FEMA to comply with the requirements of 44 CFR 350 and the planning standards of NUREG-0654/FEMA-REP-1, Rev. 2. Exercise planners utilized the elements of the Radiological Emergency Preparedness (REP) Program Manual (December 2019) to develop this exercise.

The alerting and notification of the public is a function of the state, local, tribal, and territorial governments' emergency plans. An NPP applicant/licensee is required to demonstrate that the administrative and physical means are established for alerting the public and providing instructions, regardless of who implements the Alert and Notification System (ANS) capability. An applicant/licensee may install and maintain the ANS but the responsibility for the alerting and notifying the public, as well as the activation of the ANS, remains with the state, local, tribal, and territorial governments. ANS design and implementation should include licensees, OROs, and any other relevant stakeholders to ensure collaborative consideration of the unique geographic, demographic, and technological factors of the stakeholder communities.

The Commonwealth of Virginia proposed to implement the FEMA IPAWS-WEA and IPAWS-EAS as the primary alert and notification method and the Virginia Public Notification System (VPNS), utilizing Everbridge Resident Connect as the back-up method for residential and transient populations in the 10-mile emergency planning zones (EPZs) around the Surry Power Station (SPS) and North Anna Power Station (NAPS). This proposed implementation would include the removal of the existing network of sirens and was determined to be a significant change to the State plan.

Approval of a significant change in existing plans, as defined in 44 CFR 350.14, lies with the FEMA Deputy Administrator for Resilience, and authority is delegated to the Assistant Administrator, National Preparedness Directorate. The FEMA Region 3 Regional Administrator (RA) maintains authority and responsibility to determine Reasonable Assurance that plans can be adequately implemented to protect the health and safety of persons in the EPZs. Pursuant to 44 CFR 350.14(c), the RA determined that an exercise and public meeting were required prior to forwarding a significant plan change to the Deputy Administrator for Resilience for approval. The Region 3 Technological Hazards Branch coordinated an exercise of the new alert and notification systems (both primary and back-up) and conducted a public meeting to seek public comment prior to forwarding the plan to the Deputy Administrator for Resilience.

Planning References

NUREG-0654/FEMA-REP-1, Rev. 2
Federal Emergency Management Agency Radiological Emergency Preparedness Program Manual, December 2019
Commonwealth of Virginia Radiological Emergency Response Plan, Supplement to the Commonwealth of Virginia Emergency Operations Plan, dated November 2021
Alert and Notification System Evaluation Report, Surry Power Station (Revision 3.0)
Alert and Notification System Evaluation Report, North Anna Power Station (Revision 3.0)

2.2 Exercise Objectives, Capabilities and Activities

The objective of this exercise was for VDEM to demonstrate reasonable assurance that the public can be notified and alerted during a NPP emergency. This exercise tested the significant plan change submitted by the Commonwealth of Virginia for alert and notification of the public.

1. Demonstrate implementation of revised plans/procedures for alert and notification; to include the development of messages, approval of messages, and transmission of messages through primary and back-up methods.
2. Demonstrate 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.
3. The initial notification system will ensure coverage of essentially 100% of the population within 15 minutes from 0-5 miles of the site.
4. 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.
5. The capability of the alert and notification system (ANS) to cover essentially 100% of the population within the entire plume exposure pathway EPZ, regardless of failures. The back-up system must be activated within a reasonable time to compensate for any failures of the primary system, with a recommended goal of 45 minutes.

2.3 Scenario Summary

The simulated weather forecast for the exercise was sunny with light winds from the South with a temperature of 83 degrees Fahrenheit. Wind Direction was from 83 degrees, relative to the Nuclear Power Plant, at 8.8 miles per hour (mph).

At 0800, the exercise began.

At 0805, the following scenario was given to the Virginia Emergency Operations Center (VEOC) to set the stage for them and to speed the exercise along to evaluate the exercise objectives: The VEOC was Declared as “Activated” at 0735, for an Emergency at North Anna Power Plant. With Emergency Classification Levels (ECLs) “Alert” and “Site Area Emergency” (SAE) Declared at 0701 and 0729 respectively, and Notification Via DEENS made at 0713 and 0741 respectively. No Licensee Protective Action Recommendations were made at the Classification of a “SAE”. All actions, to include Virginia ANS Activation, were completed In Accordance With (IAW) Plans, Procedures, and checklists for both ECLs at “Alert” and “SAE”.

At 0810, the VEOC received notification of an upgrade of ECL to a “General Emergency” with a Radiological Release in Progress, that was Declared at 0759, at North Anna Power Station. With the Following Protective Action Recommendations:
-Evacuate: 0-2 miles 360, 2-5 miles Downwind Sectors: A, B, and R
-Ingestion of KI for General Public and Emergency Workers

At 0917, the exercise was terminated.

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluation of VDEM that participated in the Virginia Alert and Notification Significant Plan Change Exercise.

VDEM was evaluated based on its demonstration and actions against response plans that have been submitted for review and approval by FEMA to comply with the requirements of 44 CFR 350 and the planning standards of NUREG-0654/FEMA-REP-1, Rev. 2. Exercise planners utilized the elements of the Radiological Emergency Preparedness (REP) Program Manual (December 2019) for the evaluation methodology of this exercise. Detailed information on the exercise evaluation area criteria and the Extent of Play Agreement can be found in the Exercise Plan.

3.2 Summary Results of Exercise Evaluation

The matrix presented in Table 3.1, on the following pages, presents the status of the exercise Capability Target from the REP Program Manual that was scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise Capability Target are listed by number and the demonstration status of the capability targets indicated using the following letters:

- (D) Demonstrated Strength: an observed action, behavior, procedure, and/or practice that is worthy of special notice and positive recognition, note: this is already a common practice that many Regions employ when identifying demonstrated strengths.
- (L1) Level 1 Finding: an observed or identified inadequacy or organizational performance in an exercise that could cause a determination that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in event of a radiological emergency to protect the health and safety of the public living near a Nuclear Power Plant (NPP).
- (L2) Level 2 Finding: an observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety.
- (P) Plan Issue: an observed or identified inadequacy in the offsite response organizations' (OROs) emergency plan/implementation procedures, rather than that of the ORO's performance.
- (N) Not Demonstrated: term applied to the status of a REP exercise objective/capability target indicating that the ORO, for a justifiable reason, did not demonstrate the Capability Target, as required in the extent-of-play agreement or at the two-year or eight-year interval required in the FEMA REP Program Manual.
- (M) Met: The jurisdiction or functional entity performed all activities under the Capability Target to the level required in the Extent-of-Play Agreement, with no Level 1 or Level 2 Findings assessed under that capability target in the current exercise and no unresolved prior Level 2 Findings.

Table 3.1 Exercise Evaluation Assessments Met

Location	Capability Target	Capability Target Description	Status
Objective 3: Alert and Notification			
Virginia Emergency Operations Center-Emergency Operations Center, State, Risk	3.2	Alert and Notification to the Public	M

3.3 Capability Target Summaries

3.3.1 State Jurisdictions

In summary, the status of DHS/FEMA capability targets for the State jurisdictions are as follows:

3.3.1.1 Commonwealth of Virginia Emergency Operations Center (EOC)

a. Met: 3.2
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

SECTION 4: CONCLUSION

4.1 Conclusion Summary

The Commonwealth of Virginia demonstrated knowledge of their proposed ANS plans and procedures, and they were adequately implemented during this evaluated exercise. Additionally, the Field Activity portion resulted in successful receipt of IPAWS-WEA messages by FEMA evaluators within the time requirements prescribed in the ANS design objectives.

FEMA assesses offsite planning and preparedness for communities within the plume and/or ingestion exposure pathway EPZs of commercial NPPs through an established set of objectives and capability targets that reflect the intent of the planning standards of 44 CFR 350 and the evaluation criteria of NUREG-0654/FEMA-REP-1, Rev 2, December 2019. Thus, FEMA considers these objectives/capability targets to be the benchmarks for FEMA's validation of reasonable assurance.

Each of these objectives/capability targets apply to all aspects of FEMA's assessment and are reported out in terms of core capabilities in the Biennial Preparedness Report. There are five overarching objectives, each of which have a unique set of capability targets that support the accomplishment of the objective. The capability targets are associated with one or more core capabilities, as agreed to by the OROs and RAC Chairs. This assessment strategy supports FEMA's regulatory responsibilities and successfully aligns REP evaluation methodology with the doctrine of the NPS.

Federal Emergency Management Agency (FEMA) evaluators assessed one Capability Target in one Objective:

- Objective 3: Alert and Notification

Alert and notification represent just a portion of the overall planning and preparedness of a jurisdiction that FEMA reviews when making its determination of reasonable assurance. Approval of the ANS is contained within FEMA's approval of the state, local, territorial, or tribal government(s) plans and preparedness in accordance with Title 44 of the CFR 350.5-350.7.

As part of this evaluation of ANS, when requested, FEMA staff and leadership collaborate directly with OROs, applicants, and/or licensees. This guidance for evaluating ANS allows evaluators to account for new technologies. FEMA does not require any specific ANS system, nor will it endorse any system. Upon request and with permission from the system owner, FEMA may share examples of approved ANSs currently being utilized. However, jurisdictions should be aware that an ANS that works for one community may not necessarily work in another community, given relevant factors such as population, geography, etc. OROs may submit any system for approval, provided that it meets the minimum acceptable design objectives. Other ANSs can be used in addition to the approved ANS; however, the approved ANS is the system of record and no change to, or substitution of, can be made without an update of the ANS evaluation report (ANS plan and design report) for submittal and subsequent approval.

An ANS alerts people to take an action (e.g., turn on a radio or television) in order to receive a notification. In this context, alert refers to the process used to get the attention of the public, while notification refers to the detailed information and instructions from officials. FEMA's evaluation

considers the entire system of alerting and notification, but at times the guidance may address the individual components by using the terms “alert” or “notification” independently.

The minimum acceptable design objectives for coverage by and capability of ANS are as follows:

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.

FEMA makes its assessment based on the capabilities of the ANS and not just on the technical specifications. This method of evaluation avoids prescribing a “one-size-fits-all” approach by studying all the available data and verifying that the solution the jurisdiction settled upon can and will function as designed. Additionally, this type of assessment prevents unintentional bias for any single type of system. Further, it eliminates uncertainty for the ANS designers; if the design meets the minimally acceptable design objectives and the plans satisfy the NUREG-0654/FEMA-REP-1, Rev. 2 evaluation criteria, FEMA will recommend a finding of reasonable assurance as it relates to ANS.

FEMA and the U.S. Nuclear Regulatory Commission acknowledge that not every radiological emergency at an NPP will affect the community living within the plume exposure pathway EPZ within 15 minutes. However, the ANS must be designed according to worst-case scenario. Moreover, even if the incident does not escalate rapidly, the initial notification should occur without undue delay in order to ensure wide-spread public health and safety.

FEMA and the NRC use the guidance in the joint 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, to review, evaluate, and approve radiological emergency plans. Three planning standards apply to ANS: notification methods and procedures (planning standard E); emergency communications (planning standard F); and exercises and drills (planning standard N).

There was a determination of no Level 1 Findings, no Level 2 Findings, and no Plan Issues.

Based on the results of the exercise and a review of the offsite radiological emergency response plans and procedures submitted, FEMA Region 3 has determined they are adequate (i.e., meet the planning and preparedness standards of NUREG-0654/FEMA-REP-1, Revision 2, December 2019, as referenced in 44 CFR 350.5) and there is reasonable assurance they can be implemented, as demonstrated during this exercise.

On August 8, 2022, the Regional Administrator, after weighing the totality of the exercise, field activity and public meeting, recommended approval of the significant plan change to the Deputy Administrator for Resilience. On October 24, 2022, the FEMA Deputy Administrator for Resilience, after receiving NRC acceptance, approved the significant plan change and notification was made to the VDEM State Coordinator.

4.2 Recommendations

1. During the Field Activity portion, FEMA evaluators received both the IPAWS-WEA (primary alert method) and the Virginia Public Notification System (backup method utilizing Everbridge Resident Connect) at the same time on their devices. This caused confusion to the evaluation team as far as which alert to acknowledge. FEMA recommends a short pause prior to activating the backup method, which will permit the receiver to read the primary message completely prior to receiving the backup message.
2. FEMA recommended that VDEM consider alerting the public at the Site Area Emergency (SAE) Emergency Classification Level. Doing so enables members of the public and transients in the affected Protective Action Zones to prepare for a Protective Action Decision (PAD) from the Governor or designee, which is consistent with best practices in other states across the country. By waiting to alert the public only at the General Emergency (GE), the public may not have adequate time to gather belongings and/or assemble their families, which could lead to a delayed response to the PAD.

APPENDIX A: EXERCISE EVALUATORS AND TEAM LEADERS

The following is the list of Evaluators and Team Leaders for the Virginia Alert and Notification Significant Plan Change Exercise. The following constitutes the managing staff for the Exercise Evaluation:

- Thomas Scardino, DHS/FEMA, Regional Assistance Committee (RAC) Chair
- Daniel Rose, DHS/FEMA, Project Team Lead
- Lee Torres, DHS/FEMA, Project Officer
- Rahuel Preciado, DHS/FEMA, Project Officer

LOCATION	TEAM LEADER	AGENCY
Virginia Emergency Operations Center	Thomas Scardino	FEMA R3
LOCATION	**EVALUATOR**	**AGENCY**
Virginia Emergency Operations Center	Rahuel Preciado	FEMA R3

APPENDIX B: ACRONYMS AND ABBREVIATIONS

Acronym	Description
AAR	After-Action Report
ANS	Alert and Notification System
CFR	Code of Federal Regulations
CNS	Commonwealth Notification System
DHS	U.S. Department of Homeland Security
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMnet	Emergency Management Network
EOC	Emergency Operations Center
EOP	Extent-of-Play
EPT	Exercise Planning Team
EPZ	Emergency Planning Zone
ExPlan	Exercise Plan
FCC	U.S. Federal Communications Commission
FEMA	Federal Emergency Management Agency
GE	General Emergency
HSEEP	Homeland Security Exercise & Evaluation Program
IP	Improvement Plan
IPAWS	Integrated Public Alert and Warning System
JIC	Joint Information Center
MSEL	Master Scenario Events List
NAPS	North Anna Power Station
NPP	Nuclear Power Plant
NUREG	Nuclear Regulatory
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAZ	Protective Action Zone
PIO	Public Information Officer
RA	Regional Administrator
REPP	Radiological Emergency Preparedness Program
RERP	Radiological Emergency Response Plan
RPM	Radiological Emergency Preparedness Program Manual
SAE	Site Area Emergency
SAU	Situational Awareness Unit
SOP	Standard Operating Procedure
SPS	Surry Power Station

TSSF	Technical Support Services Facility
VDEM	Virginia Department of Emergency Management
WEA	Wireless Emergency Alerts

APPENDIX C: EXTENT OF PLAY AGREEMENT

The 2022 Virginia Alert and Notification Significant Plan Change Exercise Extent-of-Play (EOP) Agreement is a document that was created by FEMA Region 3, in consultation with the Commonwealth of Virginia Department of Emergency Management that sets the parameters for exercise demonstration. The EOP agreement was signed by FEMA Region 3 and Commonwealth of Virginia Department of Emergency Management Senior Planning Team Members.

NATIONAL EXERCISE PROGRAM

Exercise Plan/Extent-of-Play

EXERCISE DATE: **JUNE 28, 2022**

VIRGINIA ALERT AND NOTIFICATION EXERCISE

U.S. DEPARTMENT OF HOMELAND SECURITY

FEMA

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PREFACE

The Virginia Alert and Notification Significant Plan Change Exercise is sponsored by the Federal Emergency Management Agency (FEMA) and the Virginia Department of Emergency Management (VDEM). This Exercise Plan (ExPlan) was produced with input, advice, and assistance from the Exercise Planning Team (EPT), which followed the guidance set forth in the Federal Emergency Management Agency (FEMA), Homeland Security Exercise and Evaluation Program (HSEEP).

The ExPlan provides participating organizations with the information necessary to observe or participate in a Nuclear Power Plant (NPP) accident response exercise focusing on participants' emergency response plans, policies, and procedures as they pertain to alert and notification. The information in this document is current as of the date of publication and is subject to change as dictated by the EPT.

The Virginia Alert and Notification Significant Plan Change Exercise is an *unclassified exercise*. The control of information is based more on public sensitivity regarding the nature of the exercise than on the actual exercise content. Some exercise material is intended for the exclusive use of exercise planners, controllers, and evaluators, but players may view other materials deemed necessary to their performance. The ExPlan may be viewed by all exercise participants.

All exercise participants should use appropriate guidelines to ensure the proper control of information within their areas of expertise and to protect this material in accordance with current jurisdictional directives. Public release of exercise materials to third parties is at the discretion of DHS and the EPT.

HANDLING INSTRUCTIONS

1. The title of this document is the Virginia Alert and Notification Significant Plan Change Exercise Plan (ExPlan).

2. The information gathered in this ExPlan should be handled as sensitive information not to be disclosed. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives. Reproduction of this document, in whole or in part, without prior approval from FEMA and VDEM is prohibited.

3. At a minimum, the attached materials will be disseminated only on a need-to-know basis and when unattended, stored in an area offering sufficient protection against theft, compromise, inadvertent access, and unauthorized disclosure.

4. For more information, please consult the following points of contact (POCs):

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CHAPTER 1: GENERAL INFORMATION

Introduction

The Virginia Alert and Notification Significant Plan Change Exercise is designed to establish a learning environment for players to exercise emergency response plans, policies, and procedures as they pertain to alert and notification for NPP accidents. This ExPlan was produced at the direction of FEMA and VDEM with the input, advice, and assistance of the EPT. The Virginia Alert and Notification Significant Plan Change Exercise is evidence of the growing partnership between Federal and State jurisdictions for response to the threats our Nation and communities.

Purpose

The purpose of this exercise is to evaluate player actions against response plans that have been submitted for review and approval by FEMA to comply with the requirements of 44 CFR 350 and the planning standards of NUREG-0654/FEMA-REP-1, Rev. 2. Exercise planners utilized the elements of the Radiological Emergency Preparedness (REP) Program Manual (December 2019) to develop this exercise.

The alerting and notification of the public is a function of the state, local, tribal, and territorial governments' emergency plans. An NPP applicant/licensee is required to demonstrate that the administrative and physical means are established for alerting the public and providing instructions, regardless of who implements the ANS capability. An applicant/licensee may install and maintain the ANS but the responsibility for the alerting and notifying the public, as well as the activation of the ANS, remains with the state, local, tribal, and territorial governments. ANS design and implementation should include licensees, OROs, and any other relevant stakeholders to ensure collaborative consideration of the unique geographic, demographic, and technological factors of the stakeholder communities.

The Commonwealth of Virginia has proposed to implement the FEMA Integrated Public Alert and Warning System/Wireless Emergency Alerts (IPAWS/WEA) as the primary alert and notification method and the Virginia Public Notification System, utilizing Everbridge Resident Connect as the back-up method for residential and transient populations in the 10-mile emergency planning zones (EPZs) around the Surry Power Station (SPS) and North Anna Power Station (NAPS). This proposed implementation would include the removal of the existing network of sirens and is determined to be a significant change to the State plan.

Approval of a significant change in existing plans, as defined in 44 CFR 350.14, lies with the FEMA Deputy Administrator for Resilience, and authority is delegated to the Assistant Administrator, National Preparedness Directorate. The FEMA Region 3 Regional Administrator (RA) maintains authority and responsibility to determine Reasonable Assurance that plans can be adequately implemented to protect the health and safety of persons in the EPZs. Pursuant to 44 CFR 350.14(c), the RA has determined that an exercise and public meeting are required prior to forwarding a significant plan change to the Deputy Administrator for Resilience for approval. The Region 3 Technological Hazards Branch is coordinating an exercise of the new alert and notification systems (both primary and back-up) and will conduct a public meeting to seek public comment prior to forwarding the plan to the Deputy Administrator for Resilience.

Exercise Objectives

The objective is for VDEM to demonstrate reasonable assurance that the public can be notified and alerted during a NPP emergency. This exercise will test the significant plan change submitted by the Commonwealth of Virginia for alert and notification of the public.

1. Demonstrate implementation of revised plans/procedures for alert and notification; to include the development of messages, approval of messages, and transmission of messages through primary and back-up methods.
2. Demonstrate 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.
3. The initial notification system will ensure coverage of essentially 100% of the population within 15 minutes from 0-5 miles of the site.
4. 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.
5. The capability of the alert and notification system (ANS) to cover essentially 100% of the population within the entire plume exposure pathway EPZ, regardless of failures. The back-up system must be activated within a reasonable time to compensate for any failures of the primary system, with a recommended goal of 45 minutes.

Planning References

- NUREG-0654/FEMA-REP-1, Rev. 2
- Federal Emergency Management Agency Radiological Emergency Preparedness Program Manual, December 2019
- Commonwealth of Virginia Radiological Emergency Response Plan, Supplement to the Commonwealth of Virginia Emergency Operations Plan, dated November 2021
- Alert and Notification System Evaluation Report, Surry Power Station (Revision 3.0)
- Alert and Notification System Evaluation Report, North Anna Power Station (Revision 3.0)

CHAPTER 2: EXERCISE LOGISTICS

Exercise Summary

General

The Virginia Alert and Notification Significant Plan Change Exercise is designed to establish a learning environment for players to exercise their plans and procedures for responding to an incident at a NPP. The Virginia Alert and Notification Significant Plan Change Exercise will be conducted on **June 28, 2022**. Exercise play is scheduled for approximately 1 hour or until FEMA determines that the exercise objectives have been met at each venue.

Assumptions

Assumptions constitute the implied factual foundation for the exercise and, hence, are assumed to be present before the start of the exercise. The following general assumptions apply to the Virginia Alert and Notification Significant Plan Change Exercise:

- Exercise injects will be realistic and plausible, containing sufficient detail from which to respond.
- Exercise players will react to the information and situations as they are presented, in the same manner as if this had been a real event.

Constructs and Constraints

Constructs are exercise devices designed to enhance or improve exercise realism. Alternatively, constraints are exercise limitations that may detract from exercise realism. Constraints may be the inadvertent result of a faulty construct or may pertain to financial and staffing issues. Although there are a number of constructs and constraints (also known as exercise artificialities) for any exercise, the EPT recognizes and accepts the following as necessary:

- Exercise communication and coordination will be limited to the participating exercise venues.
- Certain simulations are allowed based on prior approval.

Exercise Participants

The following are the categories of participants involved in this exercise; note that the term "participant" refers to all categories listed below, not just those playing in the exercise:

- **Players:** Players are agency personnel who have an active role in responding to the simulated emergency and perform their regular roles and responsibilities during the exercise. Players initiate actions that will respond to and mitigate the simulated emergency.
- **Controllers:** Controllers set up and operate the exercise site; plan and manage exercise play; act in the roles of response individuals and agencies not playing in the exercise. Controllers direct the pace of exercise play and routinely include members from the Exercise Planning Team. They provide key data to players and may or initiate certain player actions to ensure exercise continuity.
- **Evaluators:** Evaluators are chosen to evaluate and provide feedback on a designated functional area of the exercise. They are chosen based on their expertise in the functional

area(s) they have been assigned to review during the exercise and their familiarity with local emergency response procedures. Evaluators assess and document participants' performance against established emergency plans and exercise evaluation criteria, in accordance with HSEEP standards and within the bounds of REP Program guidance and regulations. They are typically chosen from amongst planning committee members or the agencies/organizations that are participating in the exercise. FEMA evaluators will not serve as controllers.

Exercise Tools

Extent-of-Play Agreement (EOPA)

The EOPA will document and define the agreed-upon approach to demonstrating and evaluating the objectives. The EOPA is intended to define the commitment of participants in advance and should outline those commitments, as well as the facilities to be evaluated or utilized and the anticipated level of participation. The EOPA should also capture activities that may deviate in demonstration from plans and procedures as currently written, such as pre-staging personnel at or near a facility prior to activation during an exercise. The EOPA will provide reliable information for developing the assessment activity and ensure appropriate evaluation.

Master Scenario Events List

The MSEL outlines benchmarks, as well as injects that drive exercise play. It also details realistic input to the exercise players as well as information expected to emanate from simulated organizations (i.e., those nonparticipating organizations, agencies, and individuals who would usually respond to the situation). An inject will include several items of information, such as inject time, intended recipient, responsible controller, inject type, a short description of the event, and the expected player action. A series of exercise injects have been developed and will be provided by controllers to players in order to generate exercise play; to avoid compromise to exercise play, the MSEL will not be provided to exercise players prior to the exercise.

Exercise Implementation

Exercise Play

Exercise play will begin at approximately 0800 at the Virginia EOC SAU. Play will proceed according to the events outlined in the MSEL, in accordance with established plans and procedures. The exercise will conclude upon the completion of operations and attainment of the exercise objectives, as determined by FEMA.

Exercise Rules

The following are the general rules that govern exercise play:

- Real-world emergency actions take priority over exercise actions.
- Exercise participants will comply with real-world response procedures, unless otherwise directed by control staff.
- All communications (written, radio, telephone, etc.) made during the exercise will begin and end with the phrase, *"This is an exercise."*

Safety Requirements

Accident Reporting and Real Emergencies

- Anyone observing a participant who is seriously ill or injured will first advise the nearest controller, then if possible, render aid, provided the aid does not exceed his or her training.
- The controller who is made aware of a real emergency will initiate the broadcast *"Real-World Emergency"* on the controller communications network, providing the following information to the senior/lead controller and exercise director:
    - Venue/function
    - Location within the venue/function
    - Condition
    - Requirements
- The lead controller will be notified as soon as possible if a real emergency occurs.
- If the nature of the emergency requires a suspension of the exercise at the venue/function, all exercise activities at that facility will immediately cease. Exercise play may resume at that venue/function once the "Real-World Emergency" situation has been addressed.
- Exercise play at other venue/functions should not cease if one venue/function has declared a "Real-World Emergency" unless they are reliant on the affected venue.
- If a real emergency occurs that affects the entire exercise, the exercise may be suspended or terminated at the discretion of the exercise director and lead controller.

Communications Plan

Exercise Start, Suspension, and Termination Instructions

The exercise is scheduled to run for approximately 1 hour or until FEMA determines that the exercise objectives have been met. The lead controller will announce the exercise suspension or termination through cellular telephone communications.

All spoken and written communication will start and end with the statement, "THIS IS AN EXERCISE."

Player Communication

Players will use routine, in-place agency communication systems. Additional communication assets may be made available as the exercise progresses. The need to maintain capability for a real-world response may preclude the use of certain communication channels or systems that would usually be available for an actual emergency incident. In no instance will exercise communication interfere with real-world emergency communications. Each venue will coordinate its own internal communication networks and channels. The primary means of communication among the controllers, evaluators, and the venues will be cellular telephone. A list of key telephone numbers will be available before the start of the exercise.

Player Briefing

Controllers/evaluators may be required to read specific exercise details to the participants prior to exercise play. They may also have technical handouts or other materials to give to players in order to better orient them to the exercise environment.

Public Affairs

This exercise enables players to demonstrate an increased readiness to deal with a NPP incident. Any NPP exercise may be a newsworthy event. Special attention must be given to the needs of the media, allowing them to get as complete and accurate a story as possible while ensuring their activities do not compromise the exercise realism, safety, or objectives. FEMA and VDEM are responsible for disseminating public information in advance of the exercise and public meeting.

CHAPTER 3: PLAYER GUIDELINES

Exercise Staff

Lead Controller

The lead controller is responsible for the overall organization of the Virginia Alert and Notification Significant Plan Change Exercise. The lead controller monitors exercise progress and coordinates decisions regarding deviations or significant changes to the scenario caused by unexpected developments during play. The lead controller monitors actions by individual controllers and ensures they implement all designated and modified actions at the appropriate time. The lead controller debriefs the controllers after the exercise and oversees the setup and takedown of the exercise.

Controllers

At least one controller will be onsite with every facility and field evaluator participating in the exercise. Controllers will coordinate any changes that impact the scenario or affect other areas of play through the lead controller. The individual controllers issue exercise materials to players as required and monitor the exercise timeline. Controllers also provide injects to the players as described in the MSEL.

Lead Evaluator

The lead evaluator is responsible for the overall evaluation of the Virginia Alert and Notification Significant Plan Change Exercise. The lead evaluator monitors exercise progress and stays in contact with the lead controller regarding changes to the exercise during play. The lead evaluator monitors actions of individual evaluators and ensures they are tracking progress of the players in accordance with the Extent-of-Play. The lead evaluator debriefs the evaluators after the exercise and oversees the entire evaluation and After-Action process.

Evaluators

Evaluators work under the direction of the lead evaluator, and as a team with controllers. Evaluators are subject matter experts who record events that take place during the exercise and assess/submit documentation for review and inclusion in the After-Action Report (AAR).

Player Instructions

Before the Exercise

- Review the appropriate emergency plans, procedures, and exercise support documents.
- Be at the appropriate site at least 30 minutes before the start of the exercise. Wear appropriate uniform/identification badge.
- If you gain knowledge of the scenario before the exercise, notify a controller so that appropriate actions can be taken to ensure a valid evaluation.
- Please sign in.

During the Exercise

- Respond to the exercise events and information as if the emergency were real, unless otherwise directed by an exercise controller.
- Controllers will only give you information they are specifically directed to disseminate. You are expected to obtain other necessary information through existing emergency information channels.
- Do not engage in personal conversations with controllers or evaluators while the exercise is in progress. If you are asked an exercise-related question, give a short, concise answer. If you are busy and cannot immediately respond, indicate so, but report back with an answer at the earliest time possible.
- If you do not understand the scope of the exercise or if you are uncertain about an organizations or agency's participation in an exercise, ask a controller.
- Parts of the scenario may seem implausible. Recognize that the exercise has objectives to satisfy and may require the incorporation of unrealistic aspects. Note that every effort has been made to balance realism with safety and the creation of an effective learning and evaluation environment.
- All exercise communication will begin and end with the phrase "This is an exercise." This is a precaution taken so anyone overhearing the conversation will not mistake the exercise play for a real-world emergency.
- Verbalize out loud when taking an action. This will ensure that evaluators are made aware of critical actions as they occur.
- Maintain a log of your activities. Many times, this log may include documentation of activities missed by a controller or evaluator.

Following the Exercise

- At the end of the exercise at your facility, participate in the brief critique with the controllers and evaluators.
- Provide any notes or materials generated from the exercise to your controller or evaluator for review and inclusion in the AAR.

Simulation Guidelines

Because the Virginia Alert and Notification Significant Plan Change Exercise is of limited duration and scope, the physical description of what would fully occur at the incident sites and surrounding areas will be relayed to the players by controllers.

If a real emergency occurs during the exercise, the exercise at your respective venue may be suspended or terminated at the discretion of the controller(s) at each venue. If a real emergency occurs, say "Real-World Emergency" and notify the nearest controller and evaluator.

CHAPTER 4: EVALUATION AND POST-EXERCISE ACTIVITIES

Exercise Documentation

The goal of the Virginia Alert and Notification Significant Plan Change Exercise is to comprehensively exercise and evaluate the offsite response organizations' (OROs') plans and capabilities for alert and notification as they pertain to a potential NPP incident. After the exercise, data collected by controllers, evaluators, and players will be used to identify strengths and areas for improvement in the context of the exercise design objectives.

Public Meeting

A public meeting will be held following the exercise. The public meeting is an opportunity to hear from the public about the significant plan change and to discuss the evaluation of the exercise. The public/media briefing will be conducted virtually via Zoom on **July 7, 2022.**

After Action Report (AAR)

The AAR is the culmination of the exercise. It is a written report outlining the strengths and areas for improvement identified during the exercise. The AAR will include the timeline, executive summary, scenario description, performance issues, planning issues, deficiencies, and capability analysis. The AAR will be drafted by the FEMA region and provided to the state for review and comment within 30 days and finalized no more than 90 days after the assessment activity is conducted.

Improvement Plan (IP)

The IP is an outcome of the evaluation report. The IP contains information on how OROs will correct or improve Level 1 Findings, Level 2 Findings, and Plan Issues, who is responsible, and an anticipated timeline for correction/improvement. As FEMA documents each Level 1 Finding, Level 2 Finding, or Plan Issue within the evaluation report, OROs make a corresponding entry in the IP. FEMA Regions will follow up with OROs to ensure that IP corrective actions related to the Level 1 or Level 2 Findings, or Plan Issues identified by FEMA are met.

APPENDIX A: EXERCISE AND PUBLIC MEETING SCHEDULE

Table A.1 *Exercise and Public Meeting Schedule*

Time (Tentative)	Location	Activity
Date: June 28, 2022		
0800	Virginia EOC/SAU	Exercise/Evaluations
Date: June 30, 2022		
1700	Virtual via ZOOM	Public Meeting

APPENDIX B: METHOD OF OPERATION AND EXTENT-OF-PLAY

Alert and notification represent just a portion of the overall planning and preparedness that FEMA reviews when making its determination of reasonable assurance. Approval of the ANS is contained within FEMA's approval of the state, local, territorial, or tribal government(s) plans and preparedness in accordance with Title 44 of the CFR 350.5-350.7.

As part of this evaluation of ANS, when requested, FEMA staff and leadership collaborate directly with OROs, applicants, and/or licensees. This guidance for evaluating ANS allows evaluators to account for new technologies. FEMA does not require any specific ANS system, nor will it endorse any system. Upon request and with permission from the system owner,
FEMA may share examples of approved ANSs currently being utilized. However, jurisdictions should be aware that an ANS that works for one community may not necessarily work in another community, given relevant factors such as population, geography, etc. OROs may submit any system for approval, provided that it meets the minimum acceptable design objectives. Other ANSs can be used in addition to the approved ANS; however, the approved ANS is the system of record and no change to, or substitution of, can be made without an update of the ANS evaluation report (ANS plan and design report) for submittal and subsequent approval.

An ANS alerts people to take an action (e.g., turn on a radio or television) in order to receive a notification. In this context, alert refers to the process used to get the attention of the public, while notification refers to the detailed information and instructions from officials. FEMA's evaluation considers the entire system of alerting and notification, but at times the guidance may address the individual components by using the terms "alert" or "notification" independently.
The minimum acceptable design objectives for coverage by and capability of ANS are as follows:

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.

FEMA makes its assessment based on the capabilities of the ANS and not just on the technical specifications. This method of evaluation avoids prescribing a "one-size-fits-all" approach by studying all the available data and verifying that the solution the jurisdiction settled upon can and will function as designed. Additionally, this type of assessment prevents unintentional bias for any single type of system. Further, it eliminates uncertainty for the ANS designers; if the design meets the minimally acceptable design objectives and the plans satisfy the NUREG-0654/FEMA-REP-1, Rev. 2 evaluation criteria, FEMA will recommend a finding of reasonable assurance as it relates to ANS.

FEMA and the U.S. Nuclear Regulatory Commission acknowledge that not every radiological emergency at an NPP will affect the community living within the plume exposure pathway EPZ within 15 minutes. However, the ANS must be designed according to worst-case scenario. Moreover, even if the incident does not escalate rapidly, the initial notification should occur without undue delay in order to ensure wide-spread public health and safety.

FEMA and the NRC use the guidance in the joint 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, to review, evaluate, and approve radiological emergency plans. Three planning standards apply to ANS: notification methods and procedures (planning standard E); emergency communications (planning standard F); and exercises and drills (planning standard N).

This exercise will evaluate the Virginia Department of Emergency Management's actions against response plans that have been submitted for review and approval by FEMA to comply with the requirements of 44 CFR 350 and the planning standards of NUREG-0654/FEMA-REP-1, Rev. 2. Exercise planners utilized the elements of the Radiological Emergency Preparedness (REP) Program Manual (December 2019) for the evaluation methodology of this exercise.

State Negotiated Extent-of-Play:
➢ FEMA evaluators will be stationed in the VDEM SAU to evaluate operator knowledge and implementation of revised procedures, and to validate activities in accordance with plan changes. ➢ In order to meet the time requirements identified in the Design Objectives (listed on page 17 under Method of Operation; and on page 8 under Exercise Objectives), FEMA acknowledges that design objectives will be met when receipt of IPAWS/WEA and EAS messages are received at the FEMA IPAWS Open Gateway.

- To adequately test the IPAWS/WEA notifications, the SAU shall demonstrate activation sequence in accordance with plans and procedures and send the IPAWS/WEA message to the IPAWS Open Gateway at the FEMA IPAWS Technical Support Center. FEMA evaluators will be provided a screenshot of the receipt of message by the IPAWS Technical Support Services Facility. If required, an opportunity for redemonstration will be afforded.
- VDEM SAU staff will create an "exercise group" within the Everbridge Resident Connect system so that only the evaluation team will receive the back-up notification system message on their cell phones via text message.
- It is important that FEMA evaluate both the primary and back-up alert and notification methods in accordance with the submitted ANS Design Report and plans. To do this, there will be an evaluation of the primary activation of FEMA IPAWS/WEA and EAS, in concurrence with the back-up activation of the Virginia Public Notification System (referred also as the Everbridge Resident Connect System).
- VDEM SAU will describe to the FEMA evaluator the alternate methods of activating the primary system in the event of a failure. Exercise injects will drive demonstration for this activity.
- VDEM SAU will activate EAS through the primary method, however actual sending of an EAS message to the broadcast stations will not occur. FEMA recognizes that VDEM complies with FCC requirements for EAS testing.
- A series of exercise injects have been developed and will be provided by controllers to exercise participants to generate exercise play.
- Initiating inject message will be a utility PAR. This will afford players the time to formulate a PAD. At the time a decision is made to activate the ANS system, the 15-minute ANS clock will commence. It is expected that revised plans and procedures will be followed in the development of the EAS message by PIO, approval of same by leadership, and transmission through revised systems.
- All activities will be demonstrated as they would be in an actual emergency, except as noted in the Extent-of-Play Agreement.

APPENDIX C: PARTICIPATING AGENCIES

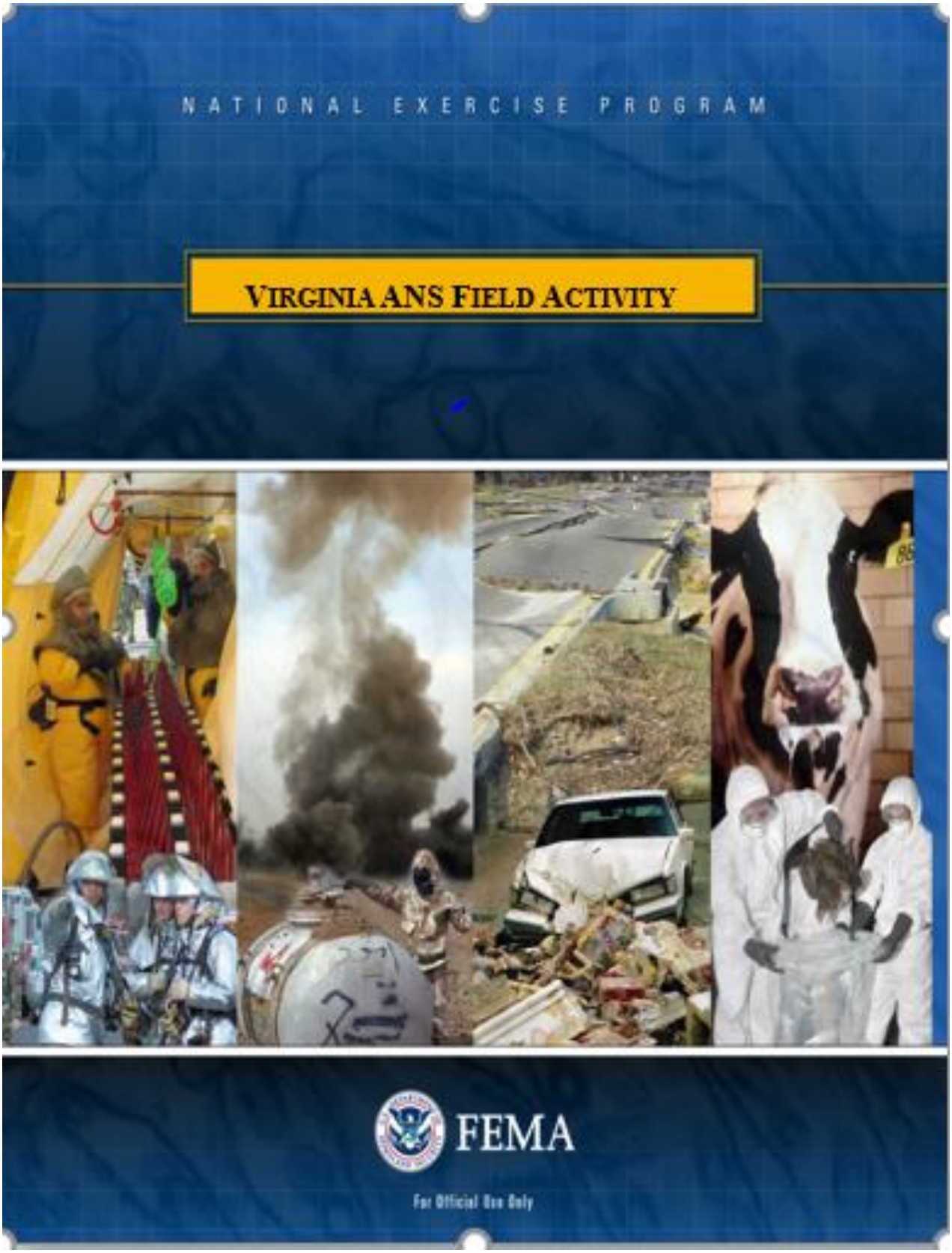
Federal Agencies
Federal Emergency Management Agency
State Jurisdictions
Virginia Department of Emergency Management
Private Sector Organizations
Dominion Energy

APPENDIX D: LIST OF ACRONYMS

Acronym	Description
AAR	After-Action Report
ANS	Alert and Notification System
CFR	Code of Federal Regulations
CNS	Commonwealth Notification System
DHS	U.S. Department of Homeland Security
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMnet	Emergency Management Network
EOC	Emergency Operations Center
EOP	Extent-of-Play
EPT	Exercise Planning Team
EPZ	Emergency Planning Zone
ExPlan	Exercise Plan
FCC	U.S. Federal Communications Commission
FEMA	Federal Emergency Management Agency
GE	General Emergency
HSEEP	Homeland Security Exercise & Evaluation Program
IP	Improvement Plan
IPAWS	Integrated Public Alert and Warning System
JIC	Joint Information Center
MSEL	Master Scenario Events List
NAPS	North Anna Power Station
NPP	Nuclear Power Plant
NUREG	Nuclear Regulatory
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAZ	Protective Action Zone
PIO	Public Information Officer
RA	Regional Administrator
REPP	Radiological Emergency Preparedness Program
RERP	Radiological Emergency Response Plan
RPM	Radiological Emergency Preparedness Program Manual
SAE	Site Area Emergency
SAU	Situational Awareness Unit
SOP	Standard Operating Procedure
SPS	Surry Power Station
VDEM	Virginia Department of Emergency Management
WEA	Wireless Emergency Alerts

ATTACHMENT 1
FIELD ACTIVITY EXTENT OF PLAY AGREEMENT

The 2022 Virginia Alert and Notification System Field Activity Extent-of-Play (EOP) Agreement is a document that was created by FEMA Region 3, in consultation with the Commonwealth of Virginia Department of Emergency Management that sets the parameters for the field activity demonstration. The EOP agreement was signed by FEMA Region 3 and Commonwealth of Virginia Department of Emergency Management Senior Planning Team Members.


NATIONAL EXERCISE PROGRAM
VIRGINIA ANS FIELD ACTIVITY
FEMA
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PREFACE

To adequately assess the IPAWS/WEA notifications and Everbridge back-up electronic notifications, FEMA personnel will be stationed throughout each risk county at 5 miles (for those counties that are geographically within 5 miles) and at 10 miles (approximate) to validate design objectives of receipt of notification within 15 minutes (0-5 miles) and 45 minutes (throughout the EPZs). VDEM will provide the locations of evaluator placement to FEMA within a reasonable time after receipt of this field activity plan.

Personnel will be provided a test code from the FEMA IPAWS Lab to enable only the evaluation team to receive the IPAWS/WEA message on their cellular devices. VDEM staff may serve as controllers and may be provided the IPAWs test code as well.

VDEM SAU staff will create an "exercise group" within the Everbridge Resident Connect system so that only the evaluation team will receive the back-up notification system message on their cell phones.

The North Anna and Surry segments of this activity will occur separately to allow travel and relocation of personnel involved in the activity.

The Regional Administrator is delegated the responsibility to determine reasonable assurance that a significant plan change can be implemented. Determination will be made by the Regional Administrator after a comprehensive review of the results of the exercise, field activity, plan review, and public meeting.

Field Activity of IPAWS-WEA
North Anna ➢ The purpose of the activity is to demonstrate the capability to receive a Wireless Emergency Alert Test Message in each of the following jurisdictions located within the North Anna Plume Exposure Emergency Planning Zone: Louisa County, Spotsylvania County, Hanover County, Caroline County, and Orange County. ➢ Dominion Energy (DE) will also staff the field locations and record results of the IPAWS/WEA test on a bank of phones from each of the following major carriers: Verizon, AT&T, T-Mobile. FEMA will use the data from their FEMA issued phone and personal cell phone to record receipt. ➢ FEMA will send 10 personnel to locations in each risk county identified above at locations approximately 5 miles and 10 miles from the plant. VDEM and Dominion can also deploy as exercise controllers and receive the WEA for recording. Personnel will be in pre-designated areas that are identified and agreed to by VDEM and FEMA prior to the activity. ➢ At a pre-determined time, a Wireless Emergency Alert Message utilizing the "Test Code" will be initiated by the Virginia SAU staff to a polygon encompassing the North Anna Plume Exposure Emergency Planning Zone. ➢ To satisfy the requirements for an ANS system and the significant plan change, personnel will record receipt at the 5-mile location and at the 10-mile location. Under no

circumstances will personnel operate motor vehicles throughout the EPZ while focused on their cell phones. Personnel will document receipt of the WEA, including receipt time, for each of their cell phones.

Surry

- The purpose of the activity is to demonstrate the capability to receive a Wireless Emergency Alert Test Message in each of the following jurisdictions located within the Surry Plume Exposure Emergency Planning Zone: City of Williamsburg, City of Newport News, York County, Isle of Wight County, Surry County, and James City County.
- Dominion Energy (DE) may provide phones from each of the following major carriers: Verizon, AT&T, T-Mobile. FEMA appreciates DE providing phones from the three Tier I cellular carriers, however, FEMA will also use the data from their FEMA issued phone and personal cell phone to record receipt.
- FEMA will send 13 personnel to locations in each risk county identified above at locations approximately 5 miles and 10 miles from the plant. VDEM and Dominion can also deploy as exercise controllers and receive the WEA for recording. Personnel will be located in pre-designated areas that are identified and agreed to by VDEM and FEMA prior to the activity.
- At a pre-determined time, a Wireless Emergency Alert Message utilizing the "Test Code" will be initiated by the Virginia SAU staff to a polygon encompassing the Surry Plume Exposure Emergency Planning Zone.
- To satisfy the requirements for an ANS system and the significant plan change, personnel will record receipt at the 5-mile location and at the 10-mile location. Under no circumstances will personnel operate motor vehicles throughout the EPZ while focused on their cell phones. Personnel will document receipt of the WEA, including receipt time, for each of their cell phones.

DEMONSTRATION SITES/PERSONNEL

JUNE 28, 2022 - 0930	
DEMONSTRATION SITE	**PERSONNEL**
Virginia Emergency Operations Center	
Situational Awareness Unit	Tom Scardino
Situational Awareness Unit	Rahuel Preciado
Caroline County	
5-10 Mile ***(Caroline County-2)***	Kathy Duran
5-10 Mile ***(Caroline County-5)***	Tina Thomas
Hanover County	
5-10 Mile ***(Hanover County-1)***	Joe Suders
5-10 Mile ***(Hanover County-2)***	Alex Hazard
Louisa County	
5 Mile ***(Louisa County-2)***	Taylor Griffiths
5-10 Mile ***(Louisa County-1)***	Lee Torres
Orange County	
5-10 Mile ***(Orange County-2)***	Dennis Cribben
5-10 Mile ***(Orange County-5)***	Chris Nemcheck
Spotsylvania County	
5 Mile ***(Spotsylvania-3)***	Dan Rose
5-10 Mile ***(Spotsylvania-5)***	Zach Corle

JUNE 28, 2022 - 1330	
DEMONSTRATION SITE	**PERSONNEL**
Virginia Emergency Operations Center	
Situational Awareness Unit	Tom Scardino
Fort Eustis	
5 Mile ***(James River Reserve Fleet-Harrison Rd.)***	Joe Suders
City of Newport News	
5-10 Mile ***(Newport News-1)***	Alex Hazard
5-10 Mile ***(Newport News-4)***	Rahuel Preciado
City of Williamsburg	
5-10 Mile ***(Williamsburg-1)***	Dan Rose
5-10 Mile ***(Williamsburg-4)***	Zach Corle
Isle of Wight County	
5 Mile ***(Isle of Wight-3)***	Kathy Duran
5-10 Mile ***(Isle of Wight-2)***	Tina Thomas
James City County	
5 Mile ***(James City-2)***	Chris Nemcheck
5-10 Mile ***(James City-5)***	Dennis Cribben
Surry County	

5 Mile ***(Surry-3)***	Lee Torres
5-10 Mile ***(Surry-1)***	Taylor Griffiths
York County	
5 Mile ***(York County-1)***	Dan Brewer
5-10 Mile ***(York County-4)***	Lorenzo Leon

ATTACHMENT 2
FIELD ACTIVITY QUICK LOOK REPORT

The 2022 Virginia Alert and Notification System Field Activity Quick Look Report is a document that was created by FEMA Region 3, to evaluate the effectiveness and provide a summary of results to better inform the Deputy Administrator for Resilience.

Virginia Alert & Notification System Field Activity

June 28, 2022

Federal Emergency Management Agency Region 3 Quick-Look Report

Purpose

This Quick Look Report summarizes the conduct of the FEMA-observed Field Activity (FA) which took place on June 28, 2022 in the 10-mile Emergency Planning Zones (EPZs) surrounding the North Anna Power Station (NAPS) and the Surry Power Station (SPS). The FA was intended to validate the ability of the Commonwealth of Virginia to effectively alert and notify the public of an incident at NAPS and/or SPS utilizing a proposed combination of the FEMA Integrated Public Alert and Warning System/Wireless Emergency Alerts (IPAWS/WEA) and the Virginia Public Notification System (utilizing Everbridge Resident Connect).

Overview

The Commonwealth of Virginia has proposed to implement the FEMA IPAWS/WEA as the primary alert and notification method, and the Virginia Public Notification System (utilizing Everbridge Resident Connect) as the back-up method, for residential and transient populations in the 10-mile EPZs around the NAPS and the SPS. This proposed implementation would include the removal of the existing network of sirens and is determined to be a significant change to the State plan.

Approval of a significant change in existing plans, as defined in 44 CFR 350.14, lies with the FEMA Deputy Administrator for Resilience, and authority is delegated to the Assistant Administrator, National Preparedness Directorate. The FEMA Region 3 Regional Administrator (RA) maintains authority and responsibility to determine Reasonable Assurance that plans can be adequately implemented to protect the health and safety of persons in the EPZs. Pursuant to 44 CFR 350.14(c), the RA determined that an exercise and public meeting were required prior to forwarding a significant plan change to the Deputy Administrator for Resilience for approval.

On June 28, 2022, the exercise was held at the Virginia Department of Emergency Management (VDEM) Situational Awareness Unit (SAU) to test the significant plan change submitted by the Commonwealth of Virginia for alert and notification of the public. The objective was for VDEM to demonstrate reasonable assurance that the public can be notified and alerted during a nuclear power plant emergency. In conjunction with the exercise, the FA was also conducted on June 28 to assess the adequacy of the IPAWS/WEA notifications and the Everbridge back-up electronic notifications in the EPZs surrounding NAPS and SPS.

Field Activity Summary

This Quick Look Report summarizes the conduct and results of the Virginia Alert & Notification System (ANS) FA. The FA involved FEMA personnel stationed throughout each risk county at 5 miles (for those counties that are geographically within 5 miles) and at 10 miles (approximate) to validate design objectives of receipt of notification within 15 minutes (0-5 miles) and 45 minutes (throughout the EPZs). VDEM provided the locations of evaluator placement to FEMA. Personnel were provided a test code from the FEMA IPAWS Technical Support Services Facility to enable only the evaluation team to receive the IPAWS/WEA message on their cellular devices. Additionally, staff from the VDEM SAU created an “exercise group” within the Everbridge Resident Connect system so that only the evaluation team would receive the back-up

notification system message on their cell phones. The NAPS and SPS segments of this FA occurred separately to allow travel and relocation of personnel involved in the activity.

Objectives

The objective of the FA was for VDEM to demonstrate reasonable assurance that the public can be notified and alerted during a nuclear power plant emergency in accordance with 44 CFR 350.5(a)(5) and Planning Standard E of NUREG-0654/FEMA-REP-1, Rev. 2. The Commonwealth of Virginia exercised the following objective/capability target during the FA:

- Objective 3: Alert and Notification Planning
  - Capability Target 3.2: Alert and Notification of the Public

Field Activity Extent of Play

NAPS

- The purpose of the FA is to demonstrate the capability to receive a WEA Test Message in each of the following jurisdictions located within the NAPS Plume EPZ: Louisa County, Spotsylvania County, Hanover County, Caroline County, and Orange County.
- Dominion Energy (DE) will also staff the field locations and record results of the IPAWS/WEA test on a bank of phones from each of the following major carriers: Verizon, AT&T, T-Mobile. FEMA will use the data from their FEMA issued phone and personal cell phone to record receipt.
- FEMA will send 10 personnel to locations in each risk county identified above at locations approximately 5 miles and 10 miles from the plant. VDEM and Dominion can also deploy as exercise controllers and receive the WEA for recording. Personnel will be in pre-designated areas that are identified and agreed to by VDEM and FEMA prior to the activity.
- At a pre-determined time, a WEA Message utilizing the "Test Code" will be initiated by the Virginia SAU staff to a polygon encompassing the NAPS Plume Exposure EPZ.
- To satisfy the requirements for an ANS system and the significant plan change, personnel will record receipt at the 5-mile location and at the 10-mile location. Under no circumstances will personnel operate motor vehicles throughout the EPZ while focused on their cell phones. Personnel will document receipt of the WEA, including receipt time, for each of their cell phones.

SPS

- The purpose of the FA is to demonstrate the capability to receive a WEA Test Message in each of the following jurisdictions located within the SPS Plume Exposure EPZ: City of Williamsburg, City of Newport News, York County, Isle of Wight County, Surry County, and James City County.
- Dominion Energy (DE) may provide phones from each of the following major carriers: Verizon, AT&T, T-Mobile. FEMA appreciates DE providing phones from the three Tier I cellular carriers, however, FEMA will also use the data from their FEMA issued phone and personal cell phone to record receipt.
- FEMA will send 13 personnel to locations in each risk county identified above at locations approximately 5 miles and 10 miles from the plant. VDEM and Dominion can also deploy as exercise controllers and receive the WEA for recording. Personnel will

be located in pre-designated areas that are identified and agreed to by VDEM and FEMA prior to the activity.

- At a pre-determined time, a WEA Message utilizing the "Test Code" will be initiated by the Virginia SAU staff to a polygon encompassing the SPS Plume Exposure EPZ.
- To satisfy the requirements for an ANS system and the significant plan change, personnel will record receipt at the 5-mile location and at the 10-mile location. Under no circumstances will personnel operate motor vehicles throughout the EPZ while focused on their cell phones. Personnel will document receipt of the WEA, including receipt time, for each of their cell phones.

Field Activity Observer Assignments and Locations

OBSERVERS FOR FIELD ACTIVITIES		
D. Brewer (R3)	A. Hazard (R3)	T. Scardino (RAC)
D. Cribben (R3)	L. Leon (R3)	J. Suders (R3)
Z. Corle (R3)	C. Nemcheck (R3)	T. Thomas (R3)
K. Duran (R3)	R. Preciado (R3)	L. Torres (R3)
T. Griffiths (R3)	D. Rose (R3)	

JUNE 28, 2022 – 0800/0930		
VIRGINIA EMERGENCY OPERATIONS CENTER – 0800		
Demonstration Site	**Address**	**Personnel**
Situational Awareness Unit	7700 Midlothian Turnpike Richmond, VA 23235	Tom Scardino
		Rahuel Preciado
CAROLINE COUNTY 0930		
5-10 Mile ***(Caroline County-2)***	19174 Country Rd., Beaverdam, VA 23015	Kathy Duran
5-10 Mile (***Caroline County-5)***	19556 Anderson Mill Road Beaverdam, VA 23015	Tina Thomas
HANOVER COUNTY – 0930		
5-10 Mile ***(Hanover County-1)***	20166 Beaver Dam Rd., Beaverdam, VA 23015	Joe Suders
5-10 Mile ***(Hanover County-2)***	21090 Green Bay Rd., Beaverdam, VA 23015	Alex Hazard
LOUISA COUNTY – 0930		
0-5 Mile ***(Louisa County-2)***	2562 Zachary Taylor Hwy., Mineral, VA 23117	Taylor Griffiths

5-10 Mile ***(Louisa County-1)***	13864 Shannon Hill Rd., Louisa, VA 23093	Lee Torres
ORANGE COUNTY – 0930		
5-10 Mile ***(Orange County-2)***	24234 Lands End Dr., Orange, VA 22960	Dennis Cribben
5-10 Mile ***(Orange County-5)***	26488 Daniels Point Dr., Unionville, VA 22567	Chris Nemcheck
SPOTSYLVANIA COUNTY – 0930		
0-5 Mile ***(Spotsylvania-3)***	3523 Fisherman Way, Bumpass, VA 23024	Dan Rose
5-10 Mile ***(Spotsylvania-5)***	6461 Brokenburg Rd., Spotsylvania, VA 22551	Zachary Corle

JUNE 28, 2022 – 1300		
VIRGINIA EMERGENCY OPERATIONS CENTER		
Demonstration Site	**Address**	**Personnel**
Situational Awareness Unit	7700 Midlothian Turnpike Richmond, VA 23235	Tom Scardino
FORT EUSTIS- 1300		
0-5 Mile	James River Reserve Fleet facility on Harrison Road	Joe Suders
CITY OF NEWPORT NEWS-1300		
5-10 Mile ***(Newport News-1)***	3931 Horse Run Gln., Newport News, VA 23602	Alex Hazard
5-10 Mile ***(Newport News-4)***	15467 Warwick Blvd., Newport News, VA 23608	Rahuel Preciado
CITY OF WILLIAMSBURG-1300		
5-10 Mile ***(Williamsburg-1)***	151 Cutspring Arch, Williamsburg, VA 23185	Dan Rose
5-10 Mile ***(Williamsburg-4)***	101 Green St., Williamsburg, VA 23185	Zachary Corle
ISLE OF WIGHT COUNTY-1300		
0-5 Mile ***(Isle of Wight-3)***	2450 Lawnes Neck Dr., Smithfield, VA 23430	Kathy Duran
5-10 Mile ***(Isle of Wight-2)***	17270 Morgarts Beach Rd., Smithfield, VA 23430	Tina Thomas
JAMES CITY COUNTY-1300		
0-5 Mile ***(James City-2)***	132 Harrops Gln., Williamsburg, VA 23185	Chris Nemcheck

5-10 Mile ***(James City-5)***	14 Waterford Ct., Williamsburg, VA 23188	Dennis Cribben
SURRY COUNTY-1300		
0-5 Mile ***(Surry-3)***	650 Chippokes Farm Rd., Surry, VA 23883	Lee Torres
5-10 Mile ***(Surry-1)***	1808 Colonial Trail West Dendron, VA 23839	Taylor Griffiths
YORK COUNTY-1300		
5-10 Mile ***(York County-1)***	2801 Old Williamsburg Rd. 5A, Yorktown, VA 23690	Dan Brewer
5-10 Mile ***(York County-4)***	118 Drew Rd., Williamsburg, VA 23185	Lorenzo Leon

Summary of Results

FA observers were directed to record receipt of the WEA, including receipt time, for each of their cell phones at the 5-mile location and at the 10-mile location in each EPZ. The results were then entered into a SharePoint-based survey form in a specific format to ensure clean and consistent data. A summary of the results for the FA in each EPZ are listed below:

Summary of Survey Responses: NAPS Field Activity

- 10 FA observers were stationed throughout the NAPS EPZ to validate receipt of separate test messages from both the Virginia Public Notification System message (utilizing Everbridge Resident Connect) as well as IPAWS/WEA
- Two observers were located between 0-5 miles from NAPS and eight observers were located between 5-10 miles from NAPS
- Each observer was equipped with a FEMA-issued cell phone, and nine of the 10 observers also used their personal cell phones during this portion of the FA
- All 10 observers responded to the SharePoint survey
- AT&T was the carrier for all FEMA-issued cell phones, which consisted of eight iPhone Xr, one iPhone X, and one iPhone 11
- The nine personal cell phones were serviced by a variety of carriers (five Verizon, two T-Mobile/Sprint, one AT&T, and one Comcast Mobile/Xfiniti); the personal cell phones consisted of three iPhone 13, two iPhone 12, one iPhone 9, one iPhone Xr, one Samsung Galaxy S10, and one Samsung Galaxy S21
- All observers reported that the complete Virginia Public Notification System message (utilizing Everbridge Resident Connect) sent at 0852 was received at 0852 only on their FEMA-issued phones
    - The "exercise group" within the Resident Connect created by the VDEM SAU did not include the personal phone numbers of the FA observers, thus the message was neither transmitted to nor received by the observers' personal phones
    - The content of the Resident Connect message was as follows: *"The Governor of Virginia has activated the Emergency Alert System because of an emergency at the North Anna Nuclear Power Station. Information can be found in Dominion*

Energy's emergency planning calendar and online at www.dominionenergy.com. Tune to your TV and Radio for more information."

- All observers reported that the complete IPAWS/WEA message sent at 0930 was received at 0930 on FEMA-issued phones
- The nine observers using their personal cell phones also reported that the IPAWS/WEA message sent at 0930 was received at 0930 on their personal cell phones
- The content of the IPAWS/WEA message was as follows: *"This is a Wireless Emergency Alert Test. No actions are required."*

Summary of Survey Responses: SPS Field Activity

- 13 FA observers were stationed throughout the SPS EPZ to validate receipt of an IPAWS/WEA test message; the Virginia Public Notification System message (utilizing Everbridge Resident Connect) was not tested during this portion of the FA
- Four observers were located between 0-5 miles from SPS and nine observers were located between 5-10 miles from SPS
- Each observer was equipped with a FEMA-issued cell phone, and 12 of the 13 observers also used their personal cell phones during this portion of the FA
- All 13 observers responded to the SharePoint survey
- AT&T was the carrier for all FEMA-issued cell phones, which consisted of 10 iPhone Xr, two iPhone X, and one iPhone 11
- The 12 personal cell phones were serviced by a variety of carriers (seven Verizon, three T-Mobile/Sprint, one AT&T, and one Comcast Mobile/Xfiniti); the personal cell phones consisted of five iPhone 13, two iPhone 12, one iPhone 9, one iPhone 6s, one iPhone Xr, one Samsung Galaxy S10, and one Samsung Galaxy S21
- The IPAWS/WEA message was sent at 1330
- All observers reported that the complete IPAWS/WEA message sent at 1330 was received on their FEMA-issued phones:
    - 11 observers reported that the message was received at 1330
    - One observer reported that the message was received at 1331 (AT&T/iPhone X/York County-4)
    - One observer reported that the message was received at 1336 (AT&T/iPhone Xr/Isle of Wight-3)
- The twelve observers using their personal cell phones also acknowledged receipt of the IPAWS/WEA message sent at 1330:
    - 10 observers reported that the message was received at 1330
    - One observer reported that the message was received at 1331 (Verizon/iPhone 13/York County-4)
    - One observer reported that the message was received at 1332 (T-Mobile/Sprint/iPhone 13/Isle of Wight-2)
- The content of the IPAWS/WEA message was as follows: *"This is a Wireless Emergency Alert Test. No actions are required."*

Conclusion

All FA observers received the Resident Connect message in the NAPS EPZ as well as the IPAWS/WEA message in both the NAPS and SPS EPZs, indicating a message receipt rate of 100%. Furthermore, each message was received within 15 minutes (0-5 miles from each site) and 45 minutes (throughout the EPZs surrounding each site). The results of the FA indicate that IPAWS/WEA notifications and Everbridge back-up electronic notifications in the EPZs surrounding NAPS and SPS were adequate, and the design objectives of the FA were validated.

Recommendations

1) During the FA, FEMA evaluators received both the IPAWS-WEA (primary alert method) and the Virginia Public Notification System (backup method utilizing Everbridge Resident Connect) at the same time on their devices. This caused confusion to the evaluation team as far as which alert to acknowledge. FEMA recommends a short pause prior to activating the backup method, which will permit the receiver to read the primary message completely prior to receiving the backup message.
2) FEMA recommends that VDEM consider alerting the public at the Site Area Emergency (SAE) Emergency Classification Level. Doing so enables members of the public and transients in the affected Protective Action Zones to prepare for a Protective Action Decision (PAD) from the Governor or designee, which is consistent with best practices in other states across the country. By waiting to alert the public only at the General Emergency (GE), the public may not have adequate time to gather belongings and/or assemble their families, which could lead to a delayed response to the PAD.

ATTACHMENT 3
IPAWS TSSF AFTER ACTION REPORT

The IPAWS TSSF After Action Report contains technical specifications for both the IPAWS WEA Field Activity, as well as the IPAWS EAS portion conducted during the exercise. The IPAWS TSSF After Action Report indicates a successful activation of the IPAWs-WEA and IPAWS-EAS in accordance with the significant plan change, and confirms results from evaluators in the field.

SUMMARY

At the request of the Virginia Department of Emergency Management (VDEM), Integrated Public Alert and Warning System (IPAWS) Technical Support Services (TSS) staff provided on-site technical support to VDEMs issuance of IPAWS alerts during its 2022 VDEM Alert and Notification Plan Exercise. Exercise was performed to validate updates to the VDEM ANS Plan, per the regulatory authority of the Region 3 Regional Administrator. Attendees included VDEM Situational Awareness Unit (SAU), Region 3 Technological Hazards Division (THD), and Dominion Energy personnel. Scenarios involved incidents at two Dominion Energy power plants: North Anna Power Station (NAPS) and Surry Power Station (SPS).

Alert Number One (not live):
COG ID: 300058
Posted Message ID: 200088707034

At 8:52:10 am, VDEM issued a WEA and Emergency Alert System (EAS) activation to the IPAWS TSS Facility (TSSF) (formerly known as IPAWS Lab). The TSSF is a closed system that mimics alerting authority capabilities in the IPAWS live environment. VDEM did not want live activation of EAS for the exercise and therefore used the IPAWS TSSF to demonstrate its ability to activate EAS and WEA simultaneously.

WEA Message:
90-character: "North Anna Power Station has declared an emergency. Turn on your TV / radio for more info."
360-character: "The Governor of Virginia has activated the Emergency Alert System because of an emergency at the North Anna Nuclear Power Station. Information can be found in Dominion Energy emergency planning calendar and online at www.dominionenergy.com. Tune to your TV and Radio for more information."

EAS Message:
"This is the Emergency Alert System. The Governor of Virginia has activated the Emergency Alert System because of an emergency at the North Anna Nuclear Power Station. The Governor has ordered evacuation for the protective action zones in the following jurisdictions: Louisa County and Spotsylvania County in protective action zones: 4, 6,8,9,10,11,12,13 and 14. People in these protective action zones are ordered to immediately leave the area and may report to their assigned evacuation assembly centers. Information to help citizens determine the protective action zone in which they are located, evacuation routes, evacuation assembly centers, and protective actions can be found in Dominion emergency planning calendar and online at www.dominionenergy.com. Please stay tuned to this Emergency Alert Station for further information and instructions."

Issued to: Caroline County, Hanover County, Louisa County, Orange County, Spotsylvania County, Fredericksburg City
Alert was successful for both WEA (IPAWS status code: 600) and EAS (IPAWS status code: 500) (see below). Please note: WEA replaced the terminology "CMAS" (formerly Commercial Mobile Alert System).

Status Items

8 results 1 of 1

Channelname	ID	DC IP	Date(Local Time)	XML
CAPEXCH	202	–	2022-06-28T12:52:11.176Z	✗
CAPEXCH	200	–	2022-06-28T12:52:11.111Z	✗
CMAS	600	–	2022-06-28T12:52:12.125Z	✗
EAS	500	–	2022-06-28T12:52:12.082Z	✗
IPAWS	300	–	2022-06-28T12:52:11.225Z	✗
NTB-PBS-82	10	161.214.48.101	2022-06-28T12:52:12.339Z	✓
NWEM	401	–	2022-06-28T12:52:12.098Z	✗
PUBLIC	801	–	2022-06-28T12:52:12.112Z	✗

Demonstration TV located at the TSSF - EAS Text Crawl of test alert

The Common Alerting Protocol (CAP) XML file is attached. This is the CAP message drafted by the VDEM Operator using IPAWS CAP Software.

Alert Number two (live WEA test) (NAPS):
COG ID: 200058
Posted Message ID: 300059088843

At 09:30:10 am, VDEM issued a live WEA test to areas within NAPS EPZs.
WEA message:
90- and 360-character: "This is a Wireless Emergency Alert Test. No actions are required."
Issued to: Caroline County, Hanover County, Louisa County, Orange County, Spotsylvania County, Fredericksburg City
TSS Staff observed proper format of the WEA test message, issuance of the alert by VDEM Operator, and confirmed receipt at IPAWS Open Platform for Emergency Networks (OPEN).
Alert was successful for WEA (IPAWS status code: 600).

Status Items

87 results 1 of 1

Channelname	ID	DC IP	Date(Local Time)	XML
ATT Primary -9	10	161.214.48.106	2022-06-28T13:29:29.837Z	✓
ATT Secondary-101	10	161.214.48.107	2022-06-28T13:29:22.556Z	✓
CAPEXCH	200	–	2022-06-28T13:29:18.553Z	✗
CAPEXCH	202	–	2022-06-28T13:29:18.614Z	✗
CellOneAz1-423	10	161.214.48.106	2022-06-28T13:29:25.321Z	✓
CellOneAz-403	10	161.214.48.107	2022-06-28T13:29:20.925Z	✓
CMAS	600	–	2022-06-28T13:29:19.654Z	✗

The following cellular carriers acknowledged receipt of the WEA:
ATT Primary -9
ATT Secondary-101
CellOneAz1-423
CellOneAz-403

cmspgw01.velleros.com-13
cmspgw02.velleros.com-14
CSpireCmspGw01-15
CSpireCmspGw-1
http://bluegrass.cmas.iot1.com-2
http://cellcom.cmas.iot1.com-401
http://claro.cmas.iot1.com-404
http://commnet.cmas.iot1.com-405
http://CTC.cmas.iot1.com-407
http://custer.cmas.iot1.com-408
http://dish.cmas.iot1.com-450
http://ekn.cmas.iot1.com-409
http://gci.cmas.iot1.com-410
http://innovative.cmas.iot1.com-412
http://jamesvalley.cmas.iot1.com -4
http://nemont.cmas.iot1.com-414
http://nex-tech.cmas.iot1.com-161
http://nntc.cmas.iot1.com-383
http://ptci.cmas.iot1.com-419
http://silverstar.cmas.iot1.com-385
http://snakeriver.cmas.iot1.com-424
http://southernlinc.cmas.iot1.com-46
http://strata.cmas.iot1.com-324
http://union.cmas.iot1.com-427
http://united.cmas.iot1.com-428
http://viya.cmas.iot1.com-429
http://wcw.cmas.iot1.com-386
PROD-PBS-81
T-Mobile2_DC1_Polaris-23
T-Mobile2_DC2_Titan-24
T-Mobile Polaris 2-21
T-Mobile Titan 2-22
uscc.com-6
uscc.com-8
Verizon2-142
Verizon-7

The CAP XML file is attached. This is the CAP message drafted by the VDEM Operator using IPAWS CAP Software.

Alert Number Three (live WEA test) (SPS):
COG ID: 200058
Posted Message ID: 300059102306

At 1:30:10, VDEM issued a live WEA test to areas within SPS EPZs.
WEA message:
90- and 360-character: "This is a Wireless Emergency Alert Test. No actions are required."
Issued to: Charles City County, VA, Isle of Wight County, VA, James City County, VA, New Kent County, VA, Surry County, VA, York County, VA, Hampton City, VA, Newport News City, VA, Poquoson City, VA, Williamsburg City, VA
TSS Staff observed proper format of the WEA test message, issuance of the alert by VDEM Operator, and confirmed receipt at IPAWS OPEN.
Alert was successful for WEA (IPAWS status code: 600).

Status Items

87 results 1 of 1

Channelname	ID	DC IP	Date(Local Time)	XML
ATT Primary -9	10	161.214.48.106	2022-06-28T17:29:20.134Z	✓
ATT Secondary-101	10	161.214.48.107	2022-06-28T17:29:12.406Z	✓
CAPEXCH	200	–	2022-06-28T17:29:08.649Z	✗
CAPEXCH	202	–	2022-06-28T17:29:08.694Z	✗
CellOneAz1-423	10	161.214.48.106	2022-06-28T17:29:15.617Z	✓
CellOneAz-403	10	161.214.48.107	2022-06-28T17:29:10.696Z	✓
CMAS	600	–	2022-06-28T17:29:09.429Z	✗

The following cellular carriers acknowledged receipt of the WEA:

ATT Primary -9
ATT Secondary-101
CellOneAz1-423
CellOneAz-403
cmspgw01.velleros.com-13
cmspgw02.velleros.com-14
CSpireCmspGw01-15
CSpireCmspGw-1

http://bluegrass.cmas.iot1.com-2
http://cellcom.cmas.iot1.com-401
http://claro.cmas.iot1.com-404
http://commnet.cmas.iot1.com-405
http://CTC.cmas.iot1.com-407
http://custer.cmas.iot1.com-408
http://dish.cmas.iot1.com-450
http://ekn.cmas.iot1.com-266
http://gci.cmas.iot1.com-410
http://innovative.cmas.iot1.com-412
http://jamesvalley.cmas.iot1.com -4
http://nemont.cmas.iot1.com-414
http://nex-tech.cmas.iot1.com-161
http://nntc.cmas.iot1.com-383
http://ptci.cmas.iot1.com-419
http://silverstar.cmas.iot1.com-385
http://snakeriver.cmas.iot1.com-424
http://southernlinc.cmas.iot1.com-46
http://strata.cmas.iot1.com-324
http://union.cmas.iot1.com-427
http://united.cmas.iot1.com-428
http://viya.cmas.iot1.com-429
http://wcw.cmas.iot1.com-386
PROD-PBS-81
T-Mobile2_DC1_Polaris-23
T-Mobile2_DC2_Titan-24
T-Mobile Polaris 2-21
T-Mobile Titan 2-22
uscc.com-6
uscc.com-8
Verizon2-142
Verizon-7

The CAP XML file is attached. This is the CAP message drafted by the VDEM Operator using IPAWS CAP Software.

FEMA IPAWS TSSF representatives:

Jody Smith, Project Manager, TSSF
Katie Hardin (ctr), Operations Manager, TSSF
Lynsey Lewis (ctr), Sr. Analyst, TSSF

ATTACHMENT 4
Approval Communications

The communications listed below are FEMA Approval for SPS and NAPS Significant Plan Change and ANS Design Reports, NRC Acceptance of FEMA's Approval for SPS and NAPS, and Letter from Region 3 Administrator to the Virginia Department of Emergency Management notifying of the Approval of the Significant Plan Change.

U.S. Department of Homeland Security
Washington, DC 20472

FEMA

August 10, 2022

Kathryn Brock
Director, Division of Preparedness and Response
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: North Anna Power Station Alert and Notification System Evaluation Report

Dear Ms. Brock:

The Federal Emergency Management Agency (FEMA) received the updated North Anna Power Station Alert and Notification System (ANS) Evaluation Report (Report), Revision 3, dated June 7, 2022. In accordance with 44 C.F.R. § 350.14, FEMA reviews and approves significant plan changes. The changes in the station's report constitute a significant change. I have reviewed and approve the report and am forwarding it to you for appropriate action.

As noted in the updated ANS Report, the station selected the Integrated Public Alert and Warning System Wireless Emergency Alerts and the Emergency Alert System as the primary alerting and notification methods for the 10-mile Emergency Planning Zone. Additionally, the VDEM Public Notification System was selected to be the independent backup alerting and notification method. Based upon FEMA's review and recommendations, I find the proposed changes adequate to protect the health and safety of the public living in the vicinity of the station. These proposed changes provide reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency and are capable of being implemented.

If you have any questions or concerns, please contact Bruce C. Foreman, Chief, Policy and Doctrine Branch, Technological Hazards Division at (202) 646-3567.

Sincerely,

DAMON C PENN
Digitally signed by DAMON C PENN
Date: 2022.08.19 10:27:04 -04'00'

Damon C. Penn
Deputy Assistant Administrator
National Preparedness Directorate
Federal Emergency Management Agency

Enclosures: North Anna Power Station Alert and Notification System Evaluation Report, Revision 3, June 7, 2022

U.S. Department of Homeland Security
Washington, DC 20472

FEMA

August 10, 2022

Kathryn Brock
Director, Division of Preparedness and Response
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Surry Power Station Alert and Notification System Evaluation Report

Dear Ms. Brock:

The Federal Emergency Management Agency (FEMA) received the updated Surry Power Station Alert and Notification System (ANS) Evaluation Report (Report), Revision 3, dated June 7, 2022. In accordance with 44 C.F.R. § 350.14, FEMA reviews and approves significant plan changes. The changes in the station's report constitute a significant change. I have reviewed and approve the report and am forwarding it to you for appropriate action.

As noted in the updated ANS Report, the station selected the Integrated Public Alert and Warning System Wireless Emergency Alerts and the Emergency Alert System as the primary alerting and notification methods for the 10-mile Emergency Planning Zone. Additionally, the Virginia Department of Emergency Management Public Notification System was selected to be the independent backup alerting and notification method. Based upon FEMA's review and recommendations, I find the proposed changes adequate to protect the health and safety of the public living in the vicinity of the station. These proposed changes provide reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency and are capable of being implemented.

If you have any questions or concerns, please contact Bruce C. Foreman, Chief, Policy and Doctrine Branch, Technological Hazards Division at (202) 646-3567.

Sincerely,

DAMON C PENN
Digitally signed by DAMON C PENN
Date: 2022.08.19 10:32:28 -04'00'

Damon C. Penn
Deputy Assistant Administrator
National Preparedness Directorate
Federal Emergency Management Agency

Enclosures: Surry Power Station Alert and Notification System Evaluation Report, Revision 3, June 7, 2022

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 14, 2022

Damon C. Penn
Deputy Assistant Administrator
National Preparedness Directorate
Federal Emergency Management Agency
400 C Street, SW
Washington, DC 20024

SUBJECT: NORTH ANNA POWER STATION ALERT AND NOTIFICATION SYSTEM EVALUATION REPORT

Dear Mr. Penn:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter dated August 10, 2022, which provided the Federal Emergency Management Agency (FEMA) approval of Revision 3 of the North Anna Power Station (NAPS) Alert and Notification System (ANS) Evaluation Report, hereinafter referred to as the NAPS ANS Report, which was received on August 23, 2022.[1]

As described in Revision 3 of the NAPS ANS Report, the primary ANS has been changed from sirens to the Integrated Public Alert and Warning Systems (IPAWS) Wireless Emergency Alert (WEA) for the five-mile emergency planning zone (EPZ) and the IPAWS Emergency Alert System (EAS) as the primary ANS in the NAPS 10-mile EPZ. For redundancy, the Virginia Department of Emergency Management (VDEM) has two IPAWS-compliant Common Alerting Protocol 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. The NAPS ANS Report further identifies VDEM's Public Notification System, an emergency telephone notification system that has the capability to perform a mass alert and notification to citizens, as the back-up alerting, and notification method should IPAWS become inoperable.

Per Section III, Paragraph 2 of the "Memorandum of Understanding (MOU) between the Department of Homeland Security/FEMA and the NRC Regarding Radiological Emergencies, Planning, and Preparedness," which was signed on November 19, 2015[2]:

> "FEMA coordinates all Federal planning for offsite impact of radiological emergencies and takes the lead for assessing offsite radiological emergency response plans and preparedness, makes findings and determinations as to the adequacy and capability of

[1] NRC's Agencywide Documents Access and Management System (ADAMS) Accession No. ML22263A280
[2] ADAMS Accession No. ML15344A371

D. Penn -3-

implementing offsite plans, and communicates those findings and determinations to the NRC. The NRC reviews FEMA's findings and determinations in conjunction with the NRC onsite findings for the purpose of making determinations on the overall state of emergency preparedness. These overall findings and determinations are used by the NRC to make radiological health and safety decisions in the issuance of licenses and the continued operation of licensed utilization facility to include taking enforcement actions such as notices of violations, civil penalties, orders, or shutdown of operating reactors. This delineation of responsibilities avoids duplicative efforts by the NRC in preparedness matters."

Consistent with the roles of each agency as set forth in the aforementioned MOU, the NRC conducted a review of the FEMA findings. To aid its review, the NRC utilized the FEMA evaluation criteria and sample template for ANS changes and use of IPAWS[3]. The NRC review focused on the applicable requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50, Appendix E, Section IV.D.3. 10 CFR 50, Appendix E, Section IV.D.3.

Additionally, the NRC evaluated the NAPS ANS Report which was attached to your letter and found that it contained sufficient information to be considered an adequate submittal for NRC to conduct its review. At this time, the NRC did not identify any licensing basis concerns.

In conclusion, the NRC accepts FEMA's findings that Revision 3 of the NAPS ANS Report meets the applicable requirements in 10 CFR 50, Appendix E, Section IV.D.3, and enables the NRC to make a finding of reasonable assurance for public health and safety.

Please feel free to contact my staff, Michael McCoppin, Chief, Policy and Oversight Branch at (301) 415-6533 or at michael.mccoppin@nrc.gov, if you have questions.

Sincerely,

Kathryn M. Brock Signed by Brock, Kathryn on 10/14/22

Kathryn M. Brock, Director
Division of Preparedness and Response
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission

[3] ADAMS Accession No. ML19339G862

D. Penn 3

FEMA Approval of North Anna ANS Change to IPAWS DATE October 14, 2022

DISTRIBUTION:
CRosales-Cooper, NSIR/DPR/POB
MMcCoppin, NSIR/DPR/POB

ADAMS Accession No.: ML22263A280; ML22263A454 *** via email**

OFFICE	NSIR/DPR/POB	NSIR/DPR/POB	NSIR/DPR*	
NAME	CRosales-Cooper *CR*	MMcCoppin *MM*	KBrock *KB*	
DATE	Sep 20, 2022	Sep 26, 2022	Oct 14, 2022	

OFFICIAL RECORD COPY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 13, 2022

Damon C. Penn
Deputy Assistant Administrator
National Preparedness Directorate
Federal Emergency Management Agency
400 C Street, SW
Washington, DC 20024

SUBJECT: SURRY POWER STATION ALERT AND NOTIFICATION SYSTEM EVALUATION REPORT

Dear Mr. Penn:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter dated August 10, 2022, which provided the Federal Emergency Management Agency (FEMA) approval of Revision 3 of the Surry Power Station Alert and Notification System (ANS) Evaluation Report, hereinafter referred to as the Surry ANS Report, which was received on August 23, 2022.[1]

As described in Revision 3 of the Surry ANS Report, the primary ANS has been changed from sirens to the Integrated Public Alert and Warning Systems (IPAWS) Wireless Emergency Alert (WEA) for the five-mile emergency planning zone (EPZ) and the IPAWS Emergency Alert System (EAS) as the primary ANS in the Surry 10-mile EPZ. For redundancy, the Virginia Department of Emergency Management (VDEM) has two IPAWS-compliant Common Alerting Protocol 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. The Surry ANS Report further identifies VDEM's Public Notification System, an emergency telephone notification system that has the capability to perform a mass alert and notification to citizens, as the back-up alerting, and notification method should IPAWS become inoperable.

Per Section III, Paragraph 2 of the "Memorandum of Understanding (MOU) between the Department of Homeland Security/Federal Emergency Management Agency and the Nuclear Regulatory Commission Regarding Radiological Emergencies, Planning, and Preparedness," which was signed on November 19, 2015[2]:

> "FEMA coordinates all Federal planning for offsite impact of radiological emergencies and takes the lead for assessing offsite radiological emergency response plans and preparedness, makes findings and determinations as to the adequacy and capability of implementing offsite plans, and communicates those findings and determinations to the NRC. The NRC reviews FEMA's findings and determinations in conjunction with the

[1] NRC's Agencywide Documents Access and Management System (ADAMS) Accession No. ML22263A343
[2] ADAMS Accession No. ML15344A371

D. Penn -2-

> NRC onsite findings for the purpose of making determinations on the overall state of emergency preparedness. These overall findings and determinations are used by the NRC to make radiological health and safety decisions in the issuance of licenses and the continued operation of licensed utilization facility to include taking enforcement actions such as notices of violations, civil penalties, orders, or shutdown of operating reactors. This delineation of responsibilities avoids duplicative efforts by the NRC in preparedness matters."

Consistent with the roles of each agency as set forth in the aforementioned MOU, the NRC conducted a review of the FEMA findings. To aid its review, the NRC utilized the FEMA evaluation criteria and sample template for ANS changes and use of IPAWS[3]. The NRC review focused on the applicable requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50, Appendix E, Section IV.D.3. 10 CFR 50, Appendix E, Section IV.D.3.

Additionally, the NRC evaluated the Surry ANS Report which was attached to your letter and found that it contained sufficient information to be considered an adequate submittal for NRC to conduct its review. At this time, the NRC did not identify any licensing basis concerns.

In conclusion, the NRC accepts FEMA's findings that Revision 3 of the Surry ANS Report meets the applicable requirements in 10 CFR 50, Appendix E, Section IV.D.3, and enables the NRC to make a finding of reasonable assurance for public health and safety.

Please feel free to contact my staff, Michael McCoppin, Chief, Policy and Oversight Branch at (301) 415-6533 or at michael.mccoppin@nrc.gov, if you have questions.

Sincerely,

Kathryn M. Brock Signed by Brock, Kathryn on 10/13/22

Kathryn M. Brock, Director
Division of Preparedness and Response
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission

[3] ADAMS Accession No. ML19339G862

3

NRC Acceptance of FEMA Approval of Surry ANS Change to IPAWS DATE October 13, 2022

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CRosales-Cooper, NSIR/DPR/POB
MMcCoppin, NSIR/DPR/POB

ADAMS Accession No.: ML22263A343; ML22264A085

OFFICE	NSIR/DPR/POB	NSIR/DPR/POB	NSIR/DPR	
NAME	CRosales-Cooper *CR*	MMcCoppin *MM*	KBrock *KB*	
DATE	Sep 21, 2022	Sep 26, 2022	Oct 13, 2022	

OFFICIAL RECORD COPY

U.S. Department of Homeland Security
Washington, DC 20472

FEMA

October 24, 2022

Shawn Talmadge
State Coordinator
Virginia Department of Emergency Management
9711 Farrar Court
North Chesterfield, VA 23236

Subject: North Ana Power Station and Surry Power Station Alert and Notification System Evaluation Report Approval

Dear Mr. Talmadge:

This letter confirms approval of the updated North Anna Power Station and Surry Power Station Alert and Notification System (ANS) Evaluation Report (Report), Revision 3, dated June 7, 2022. In accordance with 44 C.F.R. § 350.14, FEMA approved the updated report on August 10, 2022. The report was then forwarded to the U.S. Nuclear Regulatory Commission (NRC). The NRC accepted FEMA's approval of the report on October 14, 2022.

As noted in the updated ANS Report, the North Anna Power Station and Surry Power Station selected the Integrated Public Alert and Warning System (IPAWS), Wireless Emergency Alerts (WEA) and the Emergency Alert System (EAS) as the primary alerting and notification methods for the 10-mile Emergency Planning Zone. Additionally, the Virginia Public Notification System was selected to be the independent backup alerting and notification method. These proposed changes provide reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency and are capable of being implemented.

The NRC accepted FEMA's findings that the updated ANS Report meets the applicable requirements in 10 CFR 50, Appendix E, Section IV.D.3 and enabled the NRC to make a finding of reasonable assurance for public health and safety.

It is incumbent upon the Licensee and the Offsite Response Organizations to coordinate with FEMA Region 3 to execute implementation of the plans, activation/deactivation of systems and educating the public.

www.fema.gov

Approval to Implement Updated North Anna Power Station and Surry Power Station Alert and Notification System
October 24, 2022
Page 2

If you have any questions or concerns, please contact Thomas Scardino at 215-931-5546 or at Thomas.Scardino@fema.dhs.gov.

Sincerely,

MARYANN E TIERNEY

Digitally signed by MARYANN E TIERNEY
Date: 2022.10.24 14:35:18 -04'00'

MaryAnn Tierney
Regional Administrator
Region 3

Enclosures: FEMA Approval Letter to NRC, August 10, 2022
NRC Acceptance Letter to FEMA, October 14, 2022

ATTACHMENT 5
Timeline

Virginia ANS Significant Plan Change Timeline of Events	
July 27, 2021	FEMA receives updated state plan from VDEM and ANS Design Report from Dominion Energy.
August 16, 2021	FEMA provides results of its review and recommendations for improvement.
December 14, 2021	FEMA receives state plan from VDEM with revisions.
January 5, 2022	Regional Administrator requires an exercise and a public meeting prior to forwarding a recommendation for approval in accordance with 44 CFR 350.14(c).
February 1, 2022	VDEM proposed ANS exercise date – later cancelled.
June 14, 2022	FEMA receives updated ANS activation checklists and procedures.
June 28, 2022	FEMA, including the IPAWS Technical Support Services staff, conducts ANS exercise and separate field activity of ANS plans and system.
June 30, 2022	FEMA holds a public meeting virtually for both the Surry and North Anna emergency planning zones.
August 8, 2022	Regional Administrator submits letter of approval recommendation to the FEMA Deputy Administrator for Resilience.
August 10, 2022	FEMA Deputy Administrator for Resilience reviews Region 3 Administrator's letter and approves the significant plan change.
October 14, 2022	NRC Accepts FEMA's findings of approval.
October 21, 2022	FEMA Technological Hazards Division provides Region 3 Administrator with approval letters and NRC Acceptance letters.
October 24, 2022	FEMA Region 3 Regional Administrator informs VDEM State Coordinator with approval letter.
February 1, 2023	VDEM proposed implementation schedule.