



R&D Emergency Planning Project

Quick Start Guide

For

Developing or Updating Emergency Plans

Ver. 1.0

Emergency Program Planning for TVPPA Distributors



Prepared for TVPPA, inc.

By Samuel Mullen, MBA, CEM, CDRP, Principal
MPS Communications & Planning
Critical Project Solutions for Utilities
609-646-6281
mps-services@att.net
samuelm2@att.net

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***May be used optionally with TVPPA Emergency Plan Template and
Companion Resources CD***

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Introduction

Through a recent TVPPA R&D Project, the TVPPA Distributor Emergency Plan Template was updated and is available to all members. Along with the new plan template, members will receive a Companion Resources CD that's filled with quick start information, planning guides, contact information and links to websites with plenty of other useful information.

TVPPA is genuinely concerned about where members want to go from this point forward and what we can do to help you "jump start" improvements to your plans. With more regulation being introduced on an annual basis, as well as more frequent emergencies, there has never been a better time to do this. So how can you move forward as quickly as you would like?

On the pages that follow, you will be introduced to a quick start method for moving forward with emergency plan writing or updating tasks. You are urged to walk through this guide prior to beginning your planning project to get some ideas. More detailed information can be found in the TVPPA Emergency Plan Template and TVPPA Companion Information Resources CD. You may already have a copy of these on hand.

- After you get the Emergency Planning Package from TVPPA, look through the plan template table of contents, quick start guides, and checklists to see the level of detail and assistance being offered.
- Load the Companion Resources CD into your PC CD or DVD player and launch the main menu using an Internet browser, such as Microsoft Internet Explorer. If some of the website links don't appear after you click, check with your technology folks to see if the links can be added to the list of websites allowed under your safe browsing security guidelines. All links on the CD go to official government utility and emergency planning web pages, of value to all utilities.
- Make a list of questions, concerns, and follow-up items that need to be addressed to help make your plans work for you better. A sample list is included in this Quick Start Guide.
- Empower one or more people in the utility to keep a constant watch on your planning progress and take steps to improve your plans every year. Your employees, members, and neighboring distributors all benefit from your emergency program initiatives! If you have been designated to be that person, you may find the work very interesting and there are many help tools, here and on the Internet, to make your work go faster and smoother.
- Reach out to the project contractor, MPS Communications & Planning (609-646-6281, samuelm2@att.net, mps-services@att.net) and ask how you can meet your specific needs for emergency planning or to help you get through any rough spots.
- Go forward with making improvements to your emergency plan directly or see if further assistance can be provided. Your plans are "living documents", part of the critical tools that help your utility meet its goal to provide safe and reliable power and excellent customer services.

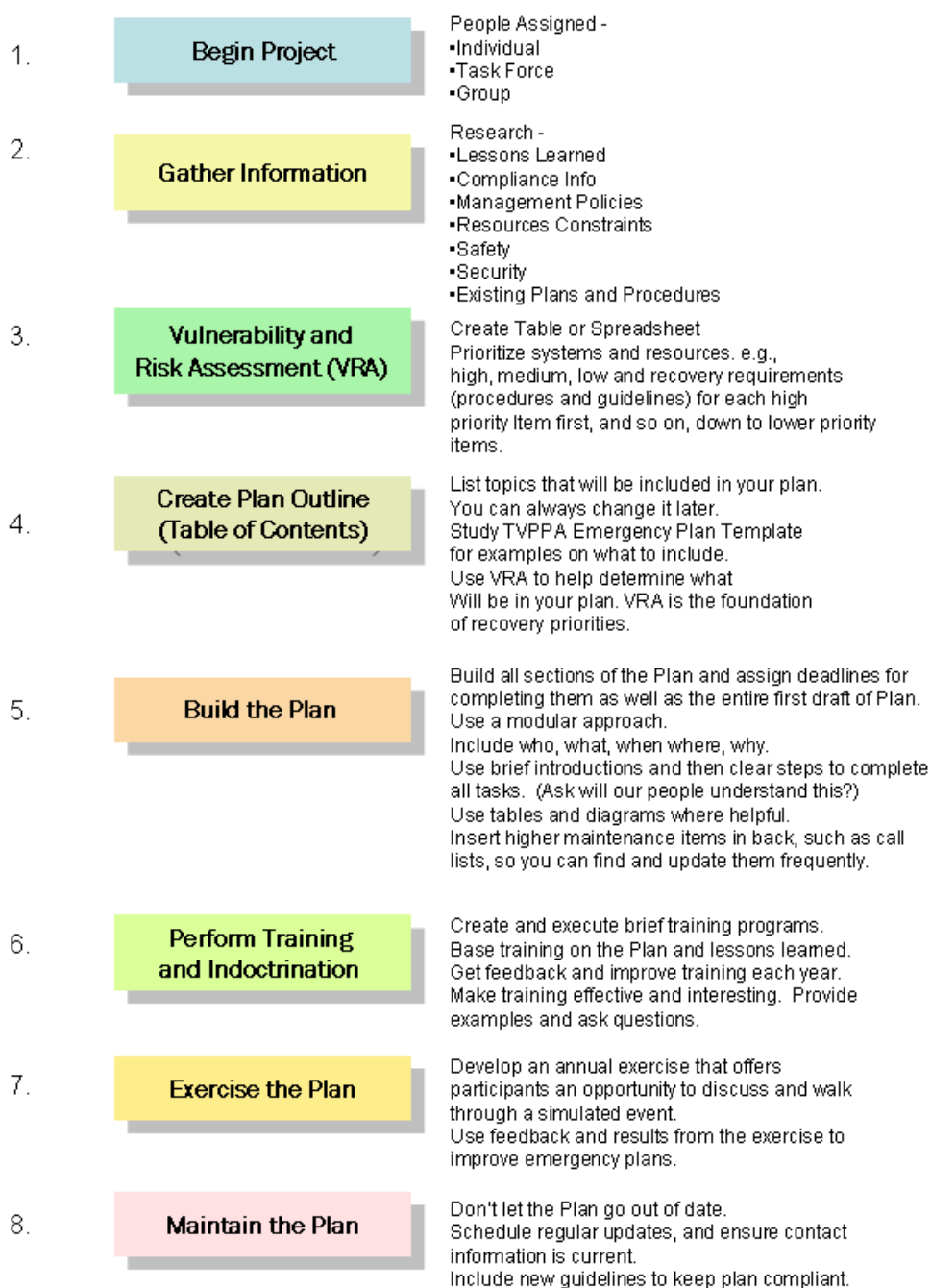
Remember, solutions to your emergency planning needs are close at hand. Take advantage of the new TVPPA emergency planning resources and keep the planning going forward. A fast start is just a few clicks away!

Emergency Plan Development Model

The eight-step model for developing emergency plans appears as Figure 1 on the following page. Take a few minutes to familiarize yourself with the model. We will be walking through the steps in the model one at a time, starting on the page that follows the diagram. This model offers a logical sequence for developing emergency plans and has been simplified for this Quick Start Guide. However, there are other ways to approach a project like this and you are encouraged to look at other guides that address similar projects.

There is no such thing as a “perfect model” for emergency planning. Projects like this depend on the resources and dedication of the people assigned and their willingness to see the project through. Emergency plans are composed of strategies, tasks, procedures, and methods to channel resources appropriately to minimize recovery time. As your plan continues to improve over the years, based on your experience and research, it will grow closer to what your utility needs for all types of damaging events. With those thoughts in mind, let's move forward.

Figure 1: Emergency Plan Development Model



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Step 1. Begin the Project

Here are a few ideas for beginning your project:

Determine which people should be involved. Remember, some people may only have involvement when their expertise is needed. If your plan contains safety guidelines, then you will want to get the input of your designated safety expert, or even have them draft a specific part of the plan. This approach would be the same for other people with other expertise.

If an individual is writing the plan, then it would be helpful to develop a schedule showing a list of people who that person will want to speak with over the course of writing the plan. When consultants write plans for utilities, they use a similar approach so that people are not away or distracted from their regular jobs for long periods of time.

If a task force is charged with developing the plan, make sure there is a person leading the project who can work with people that may not normally work together, or may be somewhat uncomfortable with the work assigned. It's best to have people that work well in groups and are able to complete assignments on time.

Pick a work location that is conducive to developing strategies and is away from the distractions of calls and people dropping in unexpectedly. Manage the project using the right tracking tools, suitable for logging progress and reporting.

Step 2. Gather Information

Gather information that will be useful in developing the plan. This can include the following:

- Guidelines
- Agency compliance documents
- Storm reports from past storms and related logs
- Magazine articles
- White papers
- Website links (See the ones included on the Resources CD)
- Templates (Like those included in the TVPPA Emergency Plan Template.)
- Contact lists: internal, external, special government agencies (FEMA), medical, lodging, food services, neighboring utilities, contract crews, weather centers, city government offices
- Vendor lists
- Emergency management plans (from local and county Emergency Management Offices)
- Organization charts
- Safety guidelines

- Other emergency plans and support documents from other parts of the utility or nearby utilities
- System maps and diagrams
- Special equipment vendor lists, such as heavy equipment
- Mutual assistance rosters
- Technology guidelines
- Radio or satellite phone lists or procedures
- TVA emergency guidelines
- Guides to writing manuals and developing training programs
- Government publications

Create a file system for the above resources as you will be accessing them at various points throughout the project.

Step 3. Perform Vulnerability and Risk Assessment

The Vulnerability and Risk Assessment (VRA) helps guide you to the most critical resources you have and want to maintain. The RUS, FEMA, and NERC guidelines all call for risk assessments to be completed as a foundation to planning for emergencies. Each agency approaches the subject matter a little differently, and so, for compliance purposes, it would be beneficial to review all three sets of guidelines, which are located on the respective websites and on the TVPPA Companion Information Resources CD.

There is also a brief guide to developing a VRA in the TVPPA Emergency Plan Template. In its simplest form, a VRA can be a table or spreadsheet (MS Excel is a good tool to use.).

Resource	Priority of Recovery	Recovery Time Objective	Recovery Point Objective	Recovery Procedures Available	Owner / Manager	Potential Loss to Utility
List resources in this column: computers, buildings, software applications, equipment, materials, etc. Place them in appropriate groups on the table for easy reference.	List relative priority for resource: e.g., high, med., low.	Maximum time you can be without the resource?	Maximum time you can be without the data (for data recovery) such as customer records or other critical data?	Do recovery procedures currently exist? What are they and are they effective? Do we depend on any vendor or external resource for recovery?	Who is in charge of this resource? Insert all contact information.	What is the level of damage and type that we can expect for the loss of this resource? Financial, reputation, litigation, fines, penalties, etc.

Keep all of the data from the VRA as foundational information to help justify additional mitigation dollars for higher priority resources. Your emergency plan should reflect your need to get higher priority resources restored as quickly as possible. Once you have the resource losses in view, you can then assign people who are best able to recover them. This will help you build out the recovery section of your emergency plan.

The VRA may show that you need address recovery using a plan which is separate from one that may be used for recovery of the electric system, for example. If you put too many objectives in your emergency plan for recovering different resources, the plan may become confusing to review and possibly too large. However, if the same people are called for different types of emergencies (in different plans), they will need to know how, where and when they are required to respond.

Step 4. Create a Plan Outline or Proposed Table of Contents

When creating an outline for the content of your emergency plan, please keep the following information in mind:

- Review the table of contents in the TVPPA Distributor Emergency Plan Template for suggestions on what to include in your plan. Also review contents of neighboring distributor plans, if they have been shared with your utility.
- Agency guidelines are requiring that utilities have physical and cyber security plans for dealing with these types of incidents. These should be included when you address the contents of your plan.
- Agency guidelines call for up-to-date contact lists for internal and external contacts. Review the Exhibits Section of the TVPPA Template to help determine which contacts are needed.
- Write the plan scope before you create your outline. Knowing the scope up front will help you better determine what should go in the plan. Start with the words, "This emergency plan will be used to..." and fill in the rest. Examples: This emergency plan will be used to recover vital systems and services and continue business operations following an emergency. Another example: This emergency plan will be used to restore service using a mobile unit transformer at designated substations following a transformer failure or other event.

Also consult the following resource:

NERC provides the following list of guidelines under "Security Guidelines for the Electricity Sector," which are also endorsed by RUS:

- Communications
- Continuity of Business Practices
- Continuity of Operations
- Control System - Business Network Electronic Connectivity
- Control System Cyber Security Incident Response Planning
- Cyber - Access Controls
- Cyber - Intrusion Detection
- Cyber - IT Firewalls

- Cyber - Risk Management
- Emergency Plans
- Employment Background Screening
- Patch Management for Control Systems
- Physical Response
- Physical Security
- Physical Security - Substations
- Protecting Potentially Sensitive Information
- Securing Remote Access to Electronic Control and Protection Systems
- Vulnerability and Risk Assessment

A direct link to the above topics is written below.

<http://www.esisac.com/library-guidelines.htm>

Step 5. Build the Plan

Prioritization Strategies: The Foundation of Emergency Planning

Effective emergency response will depend on what the utility does during the first 24- to 72-hours following a damaging event. Priorities, including damage survey, will be executed within the early hours, as soon as it is safe for surveyors to examine and report initial findings. It is then a matter of dedicating resources to complete initial recovery tasks that are critical to both business and power system operations.

Some Key Points for Plan Development

The following points may be useful in developing the Emergency Plan:

- Create a file that will become your draft emergency plan. Use a standard word processing application to ensure that the plan can be easily updated and accessed by appropriate personnel, and can be easily printed and installed in a notebook with sections clearly identified.
- Review your outline (from Step 4) of the essential topics that you intend to cover in the plan, using parts of the TVPPA Emergency Plan Template as a guide. Important: Consult your VRA (risk assessment) for priorities on resource recovery that must be included.
- Determine the scope of the plan early on, preferably at Step 4. The scope will help you limit the type of information that should be included and exclude information that is not of value to your recovery. The scope should help you determine whether your plan will be used for business continuity, power system restoration, technology recovery, or building evacuation and relocation, for example.
- Refine the outline until you have the core of what you will need in the plan and then start writing each section. Complete the main topics first and then continue editing until you are satisfied with the results. Some elements of the plan will be further refined after staging one or more exercises and applying lessons learned.
- If desired, write some of the core sections of your emergency plan using parts of the TVPPA Emergency Plan Template and customize the names and requirements to fit your

utility. Remember, the TVPPA Plan Template has also been provided in electronic format for your editing convenience. You can copy, paste, and then edit parts to fit your utility's plan, but please do not share the electronic or paper version of the TVPPA Template with anyone outside of your utility.

- Perform quality checks and get approvals with each draft of the plan. Make sure you have stayed within the plan scope and have not included unnecessary writing that will just make your plan more difficult to use.
- Gather together, and include in a special section, a comprehensive list of internal and external contacts, which is a key requirement under agency guidelines. These contacts will include the following: all internal assigned personnel, vendor 24 hour contacts (feeding, housing, logistics, communications, technology, fuels, building services, etc.), FEMA and local and state emergency contacts, critical safety, health, and security services, outside contractors, critical TVA and TVPPA numbers, as well as other contact numbers important to the utility.
- Prior to publication and distribution of the plan, ensure that you have met agency guidelines and the utility's internal requirements or document standards. The plan will become part of your document library and vital records. Electronic versions should be backed up and placed on secure CDs for safekeeping, and password protected if available online to your employees.
- Publish the plan and indoctrinate all personnel as to the plan contents and their roles during emergency response. Make certain that the board of directors, officers and managers understand and approve of the information and required action in the plan.

Step 6. Perform Training and Indoctrination

A list of suggestions for training employees on emergency procedures appears below.

Training can mean many things when it comes to emergency preparedness. This could include periodic employee discussion sessions to review procedures, technical training in equipment use for emergency responders, evacuation drills, tabletop exercises and functional to full-scale exercises.

Below are basic considerations for developing a training plan.

Assign responsibility for developing a training plan. Consider the training and information needs for employees, contractors, visitors, managers and those with an emergency response role identified in the plan.

Determine for a 12 month period:

- Who will be trained
- Who will do the training
- What training activities will be used
- When and where each session will take place
- How the session will be evaluated and documented

Consider how to involve people from all ranks in the organization. The more people know about their emergency roles the better they will be able to handle them when disaster strikes. There may also be fewer questions that will unnecessarily delay recovery.

Conduct reviews after each training activity. Involve both personnel and community responders, such as emergency management officials in the evaluation process, especially if they will be required to coordinate recovery with utility personnel.

Some questions that can help trainers design better training for employees are listed below:

- Which people will be exposed to questions from the media?
- Which employees will be specifically needed in the operations building and which may be assigned to locations closer to their homes?
- If news reporters approach the operations building, who will prevent them from wandering around the building or prevent them from entering dangerous areas in the field, such as substations (if the gates are open), near wire down incidents, or near crews working in the field? A segment of your training should address these problems.
- Which people are involved in damage survey and do they need additional training for recognizing damage to electrical equipment in the field?
- How many people have been trained on how to communicate during emergencies?
- How will people be reminded to carry additional prescription drugs and dry clothing if they are assigned to multiple duties over extended hours?
- Do the emergency officials in your community know how you repair and restore the distribution system following major storms? What about for local emergencies that affect critical loads?
- Based somewhat on employee feedback, when are the best times of the year to train people on emergency procedures?
- What happens after storms to capture lessons learned from all employees? How are the “lessons learned” used in revising your plans and training people?
- If people might be exposed to possible injury or will come across people who may have been injured during recovery, will they have access to medical kits and will they know how to use them?
- Will employees know what they are to do if they come across injured people that should not be moved from an accident scene?
- What should employees do if they come up on a possible hazardous materials incident while driving?
- Do all employees know when they should and should not enter a substation yard or materials storage area?
- Which staff members are assigned to an emergency operations center or “war room” and which ones are not? Do you find that people wander in to see what’s going on and distract others?
- Have employees been trained to use logs, hand-written notes, computer generated notes, and tracking forms to document their part in the recovery? Do they know who to give them to when recovery operations end or their shift ends?

Step 7. Exercise the Plan

The following types of exercises may be planned. Keep in mind that agency guidelines require a regularly held exercise (at least annually) to help maintain familiarity with emergency plans.

Tabletop Exercises

Tabletop exercises, which originated as military drills for tactical planning, take place in a conference-room setting with key personnel in attendance that would normally participate in a real emergency.

Participants confront a crisis scenario—a major winter storm hits a wide geographic area, taking down transmission towers on several critical circuits, for example. For distributors, this will also mean key sub-transmission and distribution circuits. Participants analyze what each of the various teams would do in a genuine, full-scale deployment and how they would work with other utilities, outside emergency agencies and vendors in order to recover.

This and all types of exercises require that a script be written and followed to help ensure that an organized exercise takes place. Each team member should be aware of his or her involvement in the exercise and in a real event. Problems are introduced and dealt with during the exercise period. Logs are kept by participants and observers record observations made when problems are introduced.

The exercise should measure (using some type of metrics) how successful participants were in dealing with specific problems encountered during the exercise. A debriefing and follow-up report is written and distributed to select individuals.

Functional Exercises

A **functional exercise** is a dry run for the real thing: it happens in “real time,” as a real emergency would, with managers and supervisors orchestrating the same resources that participated in tabletop exercises, but stopping just short of actually deploying assets.

Some utilities deploy a minimum number of resources to check the dispatch procedures and may, for example, check to contents of emergency kits and storm supplies.

A functional exercise can also be an excellent opportunity to call emergency vendors to check contact information and test emergency communications systems.

Information technology managers may want to test backup and recovery procedures for IT systems without actually taking anything out of service. If backup IT systems are available and can be tested, this may also be a part of the exercise. Some companies coordinate disaster recovery exercises with their disaster recovery vendors and offsite storage vendors.

Full-Scale Exercise

A **full-scale exercise** is equivalent to a dress rehearsal, a simulated emergency exercise in which multi-agency, multi-jurisdictional participants conduct emergency-management activities, complete with equipment and assets that would be required in an actual emergency or disaster.

Utilities should participate with outside agencies and organizations in this type of an exercise. All teams are required to participate in the exercise and the emergency operations center (EOC) is activated and all communications are tested over the course of the exercise.

A full-scale exercise can take one or more days to complete.

Exercise Reports and Benefits

Exercises of all levels should conclude with debriefings and one or more reports from all teams. Lessons learned should be documented and problems should be assigned to individuals to resolve as soon as possible and some improvement should be apparent when the next exercise rolls around. Exercises are used to maintain and improve knowledge of emergency procedures and coordination during times when many resources may be in short supply. Emergency plans should be revised based on the feedback of participants following exercises.

Step 8. Maintain the Plan

The following checklist may be used to help update and revise emergency plans:

- Record revision date in the revision records table. A record of exercises is also appropriately placed in the plan. If the plan is audited, this information is important.
- Prepare an introductory letter or memo that details what has been revised in the new revision. This should be included in the revision mailing.
- New sections or groups of procedures should be added to table of contents and index. New procedures should be reviewed with users and tested as part of the annual exercise program.
- If pages are stored in a notebook by users, ensure that three-hole punched pages are used or plain pages are punched prior to distribution.
- Internet-based versions of the plan and revisions may need to be converted to portable document format or HTML, or similar format, for viewing on the Internet.
- Allow adequate time for approvals, but if a review appears to be moving too slowly through the approval process, alert reviewers that a timely approval is needed in order to get the revision out by a predetermined date.
- Ensure that revisions are approved prior to distribution.
- If an outside printer is used, allow sufficient time for the revisions to be printed and packaged for distribution.
- It may be necessary to record completed revisions in a revision log should there be a need to determine what was revised and when the revision was installed. Review document control and compliance requirements for the type of plan that is being revised.

- If a revision affects the procedures in another plan in the organization, it will be necessary to check the coordination requirements so that plans will not conflict if both are required to be followed during certain types of emergencies.
- Make sure that there are adequate footnotes and cross-references inserted for a newly added guideline or procedure that requires them.
- It may be necessary to visit groups of plan users to explain more about a new set of procedures. This will also help people to remember the new revisions and to ask questions.
- Ensure that all procedures are technically accurate by including an expert on the topic in the review and/or approval process.
- Ensure that electronic copies, paper copies and Web-based copies of a revised plan are all updated to show the same revisions.
- Ensure that management is aware of new procedures, as well as public relations or customer relations, so that they are able to answer any questions when the plan is put into place.