

ANALYZE CAPABILITIES, RISKS, AND VULNERABILITIES

Purpose

The purpose of this module is to provide participants with an understanding of the second step of the 4-step process for emergency planning. This step entails:

- Gathering information about current capabilities, possible hazards, and emergencies.
- Conducting a vulnerability analysis to determine the facility's capabilities for handling emergencies.

Additional planning needs will also be reviewed. Internal and external resources and assets are considered in relation to a business, such as plans and policies, outside groups to involve, codes and regulations, critical products/services, and capabilities.

Concepts are reinforced in this step to help ensure application to their business by:

- Reviewing sections of an emergency plan template and identifying resources that will help them in completing an emergency plan for their business.
- Demonstrating an understanding of Step 2 by responding to questions posed at critical decision points in a case study on emergency planning.

Objectives

After completing this module, participants will be able to:

- Recognize key terms and definitions to use when analyzing capabilities, risks, and vulnerabilities.
- Recognize the scope of capabilities (internal and external to the business) that must be analyzed in the initial step of emergency action planning.
- Conduct a vulnerability analysis:
 - Identify potential emergencies.
 - Estimate probability.
 - Assess impact on property, life, and business.
- Identify resources that will help them in completing sections of an emergency plan.
- Demonstrate an understanding of Step 2 by responding to questions posed at critical decision points in a case study on emergency planning.
- Identify 2 actions related to Step 2 to implement at their workplace, as well as potential barriers to these actions and how to overcome these barriers.

Time

100 minutes (10:10 AM-Noon, including a 10-minute break)

Lunch follows this module

Agenda (Instructional Strategy and Content Outline)

The following topics and activities are covered in this module. An estimate of the time needed to cover each section of the module appears in parentheses.

1. Module Introduction (7 minutes)
 - A. Purpose and Objectives
 - B. Analyzing Capabilities, Risk, and Vulnerabilities (Orientation to Step 2/The Model)
 - C. Large Group Discussion: How can my business get a clear picture of our strengths and areas in which we are risk? How can we use this information for planning?
 - D. Key Terms
 - E. About Analyzing Capabilities, Risk, and Vulnerabilities

Agenda (Continued)

2. Gather Information: Determine Capabilities to Handle Emergencies (9 minutes)
 - A. Large Group Discussion
 - B. Determine Capability: Tasks/Areas to Assess Chart
 - C. Conduct an Insurance Review
3. Emergency Plan Templates and Resources (5 minutes)
4. Conduct a Vulnerability Analysis (7 minutes)
 - A. Large Group Discussion and Overview
 - B. Large Group Discussion: How do risk analysis tools used in your business compare with this Vulnerability Analysis Chart and its categories?
5. Activity: Vulnerability Analysis (15 minutes)
6. Activity: Initiating a Vulnerability Analysis for Your Business (12 minutes)

10-Minute Break

7. Emergency Plan Templates and Resources (2 minutes)
8. Case Study: Emergency Planning (37 minutes)
9. Activity: Priority Actions for Your Business (5 minutes)
10. Summary and Transition to Module 3 (1 minute)

Materials and Equipment

- Participant Guide and Facilitator Guide
- Flipchart, markers, and tape
- Laptop or personal computer (PC) and LCD projector with wireless remote or projector
- 17 PowerPoint slides

Suggestions for Time Management

- Start promptly on time.
- Watch the clock closely in managing activities and discussions during this module. This module is designed to be highly interactive, including 37 minutes of time spent in working on the case study. Note that this is the longest case study session in the program.

Cues**PPT 2-1****7-Minute
Presentation &
Large Group
Discussion****PPT 2-2****PPT 2-3****PPT 2-4****Question****Record responses
on a flipchart****Presentations and Activities****1. Module Introduction (7 minutes)**

- Start this module at the scheduled time.
- Show PPT 2-1.
- Ask participants to turn to Page 1 of this module.
- Conduct a general introduction to this module (Step 2 of the 4-step planning process).
- Show PPT 2-2.
- Briefly review the purpose and objectives of this module.
- Ask participants to turn to Page 3.
- Show PPT 2-3.
- State that this is the second step of the 4-step emergency planning process that will be explored in this program.
- Show PPT 2-4.
- *Ask: How can my business get a clear picture of our strengths and areas in which we are at risk? How can we use this information for planning?*
- Have at least 2-3 participants respond briefly to the questions.
- Record responses on a flipchart.
- Link participant responses to what will be covered in this module and key concepts related to this step:
 - How this step relates to business.
 - Capabilities and vulnerabilities analysis: determining risk.
 - Using information you collect to prioritize your efforts.

PPT 2-5

- Ask participants to turn to Page 4.
- Show PPT 2-5.
- Orient participants to concepts in this introduction by a brief review of key terms. Remind them that these terms were briefly introduced in the first session.
- Ask participants to turn to Page 5.
- Begin the presentation on analyzing capabilities, risks, and vulnerabilities by making comments about how this step relates to a business.
 - Businesses are concerned about employee protection, vulnerabilities of their facilities, and their ability to minimize negative economic impacts if an emergency occurs. This module (and step of the emergency planning process) is designed to assist you in assessing and analyzing the capabilities and vulnerabilities of your business that affect the safety and security of your employees, facilities, and business operations.
 - This step is based, in part, on the principles of risk and vulnerability analyses (RVAs). These analyses are used by communities to determine the vulnerability of people, property, and the natural environment to the risks posed by hazards.
 - Vulnerability analysis techniques are used to determine the vulnerability of infrastructure networks, individual structures, and the economic, environmental, and societal factors related to the risks posed by hazards.
 - These analyses may be conducted on 3 levels:
 - Macro level (e.g., multinational, regional, national, or sub-national)
 - Micro level (e.g., metropolitan, urban, community, neighborhood, a business)
 - System level (e.g., network, grid, area, individual structure)
 - Analyses may be conducted for single or multiple hazards and may address several sectors, including business and community.

PPT 2-6

- Businesses can perform an analysis of this type in many ways – there is no right or wrong way. Any method or approach that works effectively and is comprehensive (yet simple to understand) may be used and referenced in the emergency plan. The vulnerability analysis process will range in complexity based on the operation. In this module, the FEMA model is used as an example.
 - The most important thing to ensure is that each business's emergency planning team identifies the events for which preparation is necessary and that the analysis is conducted through a collaborative approach.
 - **NOTE:** For the purposes of this course, we will focus on capabilities, risks, and vulnerabilities as primarily related to your business (micro and system levels). The information you gather in this step will help you determine priority actions based on your business preparedness capabilities and vulnerabilities.
- Show PPT 2-6.
 - Describe the concept of risk and its relationship to a capabilities and vulnerabilities analysis.
 - Review key points on Pages 5 and 6.
 - Emphasize the relationship between [using] information that is collected in an assessment and prioritizing/focusing emergency planning efforts.

**9-Minute Large
Group Discussion
& Presentation****PPT 2-7****Question****PPT 2-8****2. Gather Information: Determine Capabilities to Handle Emergencies (9 minutes)**

- Ask participants to turn to Page 7.
- Introduce this section on capabilities.
- Show PPT 2-7.
- *Ask: Is your business capable of handling emergencies? How capable?*
- Have at least 2-3 participants respond briefly to these questions.
- To reinforce participant understanding of capabilities, use the example of business capability to respond to a heart attack versus an attack by a person wielding a gun.
- Tell participants that you will now be reviewing the tasks and areas to assess when determining capabilities on Pages 7-10. Make the following points:
 - There are a number of areas that must be reviewed and considered as you initially determine the capabilities of your business in regards to emergencies and emergency planning efforts.
 - Gathering this information is a critical first sub-step as you analyze your business risks, capabilities, and vulnerabilities.
- Show PPT 2-8.
- Review the tasks/areas to assess and examples from the functional roles/responsibilities chart. Budget time to present key points on the following tasks/areas:
 - Review internal plans and policies.
 - Meet with outside groups.
 - Identify codes and regulations.
 - Identify critical products, services, and operations.
 - Identify internal resources and capabilities.
 - Identify external resources.
 - Do an insurance review.

- As you review each task/area, ask participants to identify additional examples. Encourage participants to write examples in the space provided in the chart.
- Ask participants to turn to Page 11.
- Highlight key aspects of the Insurance Coverage Discussion Form from Ready Business at <http://www.ready.gov/business/downloads/insuranceform.pdf>.

**5-Minute Review/
Discussion of
Emergency Plan
Templates/
Resources**

PPT 2-9

**Make these
important points**

Question

3. Emergency Plan Templates and Resources (5 minutes)

- Ask participants to turn to Page 13.
- Conduct a 5-minute **review and discussion** that focuses on an emergency plan template and resources to complete an emergency plan.
- Show PPT 2-9.
- Remind participants that:
 - In addition to the identified resources in the PG directions, NSC has prepared a sample template that is integrated throughout the program.
 - This template follows the logic of the Emergency Management Guide for Business and Industry – A Step-by-Step Approach to Emergency Planning, Response and Recovery for Companies of All Sizes, FEMA 141/October 1993.
- Walk participants through the sample template sections on Pages 12-21.
- As you walk through the template sections, pause for a couple questions from participants and make the review as interactive as possible, time permitting.
- *As you review the sections, ask: What additional internal and addition resources will you need to help you complete the emergency plan?*
- Encourage participants to take notes about resources to follow up on upon return to their business.

**7-Minute
Presentation****PPT 2-10****Question****PPT 2-11****4. Conduct a Vulnerability Analysis (7 minutes)**

- Ask participants to turn to Page 22.
- Introduce the section of this module on conducting a vulnerability analysis.
- Show PPT 2-10.
- *Ask: What is the potential level of impact of an emergency that may impact your business?*
- Have at least 2-3 participants respond briefly to the question.
- To reinforce participant understanding of vulnerabilities, use the example of an earthquake in 2 settings such as San Francisco versus North Dakota.
- Tell participants that you will now be reviewing a vulnerability analysis form. Make the following points:
 - The next step in emergency planning is to assess/analyze the vulnerability of your facility – the probability and potential impact of each emergency.
 - The Vulnerability Analysis Chart in the FEMA Emergency Management Guide is an example of a tool that can be used to guide this process, which entails assigning probabilities, estimating impact and assessing resources, and using a numerical system.
- Show PPT 2-11.
- Review the columns on the Vulnerability Analysis Chart, in the time allotted, on Pages 22-26.
 - Encourage participants to follow along in their PGs as a reference.
 - As you walk through the chart, use the example of Anthrax on an envelope – and how it might related to a business in terms of the vulnerability analysis.
 - Remind them that there is a complete chart at the end of this overview.

PPT 2-12**Question**

- Show PPT 2-12.
- *After this review, ask: How do risk analysis tools used in your business compare with this Vulnerability Analysis Chart and its categories?*
- Have at least 1-2 participants respond briefly to the question. Comment on similarities and differences in their experiences compared to this tool.
- Ask participants to turn to Page 27.
- Tell participants that this is the complete form that can be used back at their facilities.

15-Minute Activity**PPT 2-13****Record responses on a flipchart****5. Activity: Vulnerability Analysis (15 minutes)**

- Ask participants to turn to Page 28.
- Conduct a 15-minute activity in which participants practice using a vulnerability analysis based on data from the case study.
- Show PPT 2-13.
- Review the activity directions.
- Remind participants that the case study introductory material is again provided in this activity for easy access on Pages 28-29.
- Walk participants through the 2 “completed” examples of emergencies and ratings completed for them in the chart on Page 31. Encourage questions and comments.
- Next, lead participants through the 3rd example. Read the description of the emergency and ask participants for appropriate corresponding ratings.
- Record responses on a flipchart.
- Possible ratings for Example 3 are:
 - Probability = 1
 - Human Impact = 1
 - Property Impact = 4
 - Business Impact = 5
 - Internal Resources = 3
 - External Resources = 2
 - Total = 16
- Have participants work in pairs to identify one additional “potential” emergency that may occur at the Cookie Company, including ratings. Give pairs about 4 minutes to complete the task.

Debrief

- *Ask: Which pairs used the emergency/disaster list in the Introduction module to help them complete this activity?*
- Encourage use of that list when participants return to their own business and begin completing their own analysis.
- Have at least 2 pairs share their emergencies and ratings with the large group.
 - Discuss the emergencies and ratings when they are shared. Check the ratings for accuracy.
 - Encourage participants to note other examples in their chart.
- Make the following points:
 - When you complete a vulnerability analysis, you need to think “globally” and “locally” in terms of emergencies and disasters. Emergencies/disasters do not simply impact your own business because you are part of a larger community (system) – on many levels, up to a potential international emergency or disaster.
 - Consider emergencies that may occur in and around your own business that are intentional and unintentional.
 - Anticipate the least expected situation.

12-Minute Activity	6. Activity: Initiating a Vulnerability Analysis for Your Business (12 minutes) <ul style="list-style-type: none">■ Ask participants to turn to Page 31.■ Conduct a 12-minute activity in which participants practice using a vulnerability analysis based on their business situation. This is an individual activity.
PPT 2-14	<ul style="list-style-type: none">■ Show PPT 2-14.■ Review the activity directions.■ Give participants about 6 minutes to work on this activity.
Debrief	<ul style="list-style-type: none">■ Have at least 2-3 participants share an example of what they drafted in the time allotted.
Record responses on a flipchart	<ul style="list-style-type: none">■ Record 2 examples on a flipchart so all participants can follow the logic of situations.■ If time permits, ask 2 participants to share concerns about completing a vulnerability analysis at their own business.
BREAK	<ul style="list-style-type: none">■ Take a 10-minute break.

**2-Minute Review/
Discussion of
Emergency Plan
Templates/
Resources**

PPT 2-15

Question

7. Emergency Plan Templates and Resources (2 minutes)

- Ask participants to turn to Page 33.
- Conduct a 2-minute **review and discussion** that focuses on an emergency plan template and resources to complete an emergency plan.
- Show PPT 2-15.
- Walk participants through the sample template section on Page 33.
- As you walk through the template section, pause for a couple questions from participants and make the review as interactive as possible, time permitting.
- *As you review the section, ask: What additional internal and addition resources will you need to help you complete the emergency plan?*
- Encourage participants to take notes about resources to follow up on upon return to their business.

37-Minute Case Study**PPT 2-16****Debrief****8. Case Study: Emergency Planning (37 minutes)**

- Ask participants to turn to Page 34.
- Re-Introduce the case study that is woven throughout the program (in all 4 steps/modules). Remind participants that this part of the case study will focus on the step of the 4-step emergency planning process addressed in this module.
- Show PPT 2-16.
- Review the activity directions.
- Remind participants that they will, once again, play the role of a consultant to the planning team at One is Not Enough Cookie Company.
- Take a minute to highlight the additional information in the company profile that participants need to complete the case study problems.
- Help participants to form small groups of about 4-5 participants. Encourage them to work with different people each time, if possible.
- Review the questions on Pages 34-36 and ask participants to spend about 10 minutes discussing and responding to Questions 1 and 2 (20 minutes total).
- Remind each group to identify a recorder and reporter.
- Facilitate a 10-minute debrief, splitting the time between each question.
 - Possible responses/notes for Question #1
 - A. Capabilities: Critical Products, Services and Operations – Lifeline services such as electrical power, water, sewer, gas, telecommunications and transportation.
 - B. Have groups share pros and cons. Make additional notes that are not raised. Some examples of pros and cons are provided on the following page.

Pros	Cons
Sales/Marketing	
Save money by not expending cost of back-up generator.	<ul style="list-style-type: none"> ■ Back-up battery system does not last long enough for business to continue or even appropriately shut down to save existing data (orders, shipping requests, etc.). ■ No communication (phones down, cannot send e-mails or faxes).
Manufacturing/Maintenance	
<ul style="list-style-type: none"> ■ Time to evaluate your system. ■ Lower cost to maintenance. 	Product shuts down dean in tracks. There is damage to equipment and product.
Office/Support Staff	
Probably get sent home – no power, no work.	No power, no work.

Question

- C. The planning team should recommend an improvement to the situation. They should cost out downtime (in terms of business interruption) vs. cost of the generator, including consider issues such as how likely the situation is to happen/how often a generator .may be needed.
- Possible responses/notes for Question #2
 - Advise the planning team to identify external emergencies that could impact their business model.
 - Examples of emergencies that might be identified are loss of power, water, transportation (many employees take the bus or train to work), or loss of natural gas.
- Ask: *How can you apply your work in this case study to your business situation?*
- Have 1-2 participants respond to this question. Share additional ideas, as time permits.

**5-Minute
Individual
Activity****PPT 2-17****Question****9. Activity: Priority Actions for Your Small Business
(5 minutes)**

- Ask participants to turn to Page 37.
- Facilitate a 5-minute individual activity.
- Remind participants that it is time for them to determine how they will use what they have learned in this module on their jobs.
- Show PPT 2-17.
- *Ask participants: How can you use what you learned in this module to your emergency planning efforts back at your business?*
- Review the directions for the activity and the possible actions provided as examples.
- Allow time for participants to work individually on identifying actions, potential barriers, and how to overcome barriers.
- As time permits, ask participants to share some of their actions.

**1-Minute
Summary and
Transition****LUNCH****10. Summary and Transition to Module 3 (1 minute)**

- Highlight a few of the key points from this module as you summarize what was covered. Use the objectives as a guide to reinforce important points.
- Tell participants that the next module focuses on Step 3 – Develop the Plan.
- There is a 60-minute lunch break after this module.