

Introduction to Incident Management & Response

Student Guide





Introduction to Incident Management & Response

Welcome & Introductions

Welcome to Introduction to Incident Management & Response





Introduction to Incident Management & Response

Welcome & Introductions

Welcome to Introduction to Incident Management & Response

A slide titled "Introductions" featuring a world map background. On the right, a yellow smiley face emoji is waving with a speech bubble that says "HELLO!". The slide includes a bulleted list of participants and a question, and ends with two logos at the bottom right.

Introductions

- Instructors
- Students
 - Your name?
 - Where are you from?

Slide 2



Action Plan

By the end of this lesson, I would like to:

KNOW	FEEL	BE ABLE TO DO

Your learning doesn't stop with this lesson. Use this space to think about what else you need to do or learn to put the information from this lesson into practice.

What more do I need to know or do?	How will I acquire the knowledge or skills?	How will I know that I've succeeded?	How will I use this new learning in my job?





Introduction to Incident Management & Response

Welcome & Introductions

Course Objectives

- Understand the components and structure of an incident response system, including the roles and responsibilities of personnel involved in planning and notification of an incident.
- To know how to determine the effectiveness of an incident response system, why it is important, and how drills and exercises can be used to test the function and effectiveness of the system.
- Feel part of a team that can provide expertise and consultation on an incident response system as well as identify stakeholders to contribute to an incident response system.
- Determine how to implement an incident response system, including planning an preparation.

Slide 4



Introduction to Incident Management & Response

Biorisk Management

Biorisk Management: the **AMP** Model



**Biorisk Management =
Assessment, Mitigation, Performance**

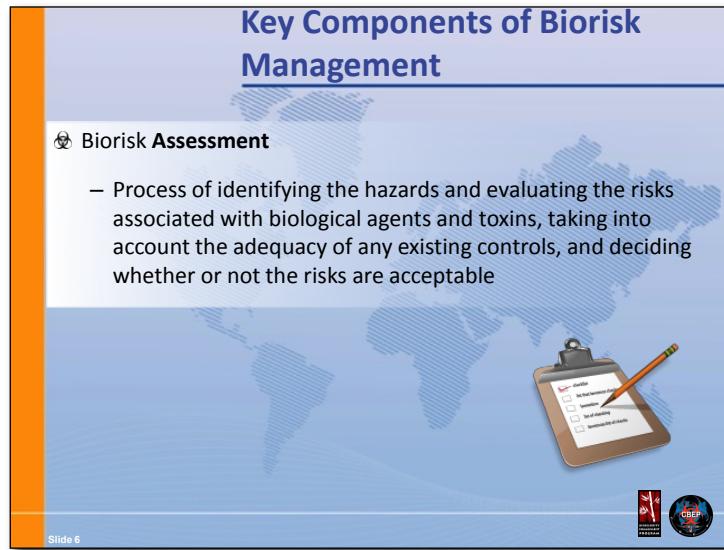
Record refresher notes on the AMP model and biorisk management.



Introduction to Incident Management & Response

Biorisk Management

Key Components of Biorisk Management

A slide with a world map background. In the center is a clipboard with a checklist. The checklist includes the following items:

- ✓ Biorisk Assessment
- Process of identifying the hazards and evaluating the risks associated with biological agents and toxins, taking into account the adequacy of any existing controls, and deciding whether or not the risks are acceptable

Slide 6

Define Biorisk Assessment:



Introduction to Incident Management & Response

Biorisk Management

Key Components of Biorisk Management

⚠ Biorisk Mitigation

- Actions and control measures that are put into place to reduce or eliminate the risks associated with biological agents and toxins



Slide 7



Define Biorisk Mitigation:



Introduction to Incident Management & Response

Biorisk Management

Key Components of Biorisk Management

A small illustration of two stylized human figures sitting at desks, writing on papers. The background is a world map.

CHEP

Performance

- The implementation of the entire biorisk management system, including evaluating and ensuring that the system is working the way it was designed. Another aspect of performance is the process of continually improving the system.

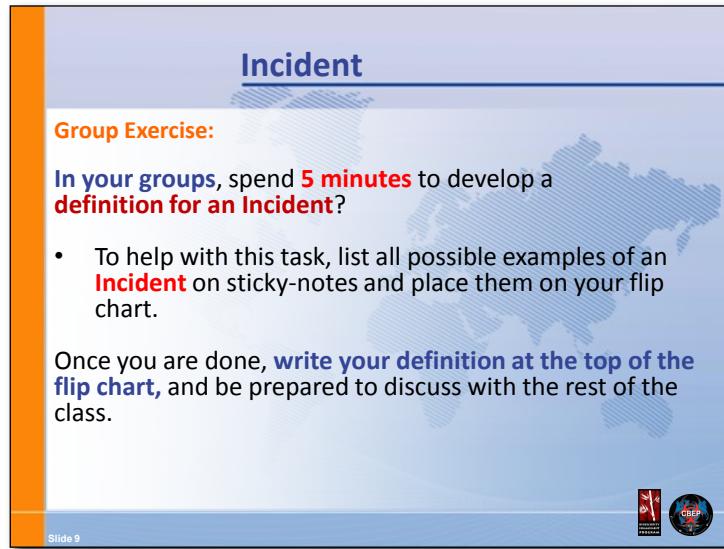
Slide 8

Define Performance:



Introduction to Incident Management & Response

Incidents

A slide titled 'Incident' with an orange sidebar. The sidebar contains the text: 'Group Exercise: In your groups, spend 5 minutes to develop a definition for an Incident?'. Below this, a list says: 'To help with this task, list all possible examples of an Incident on sticky-notes and place them on your flip chart.' At the bottom, it says: 'Once you are done, write your definition at the top of the flip chart, and be prepared to discuss with the rest of the class.' The slide is numbered 'Slide 9' at the bottom left. It features a world map background and two small circular logos at the bottom right.

Define an incident:

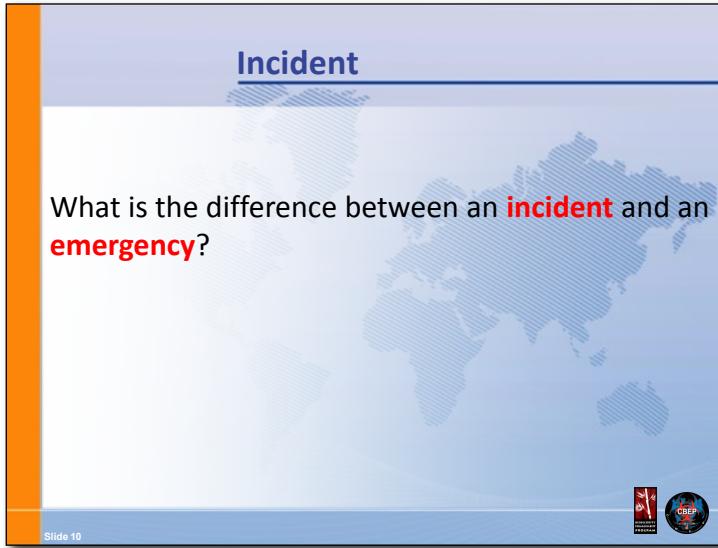
What are some examples?



Introduction to Incident Management & Response

Incidents

What is the difference between an incident and an emergency?

A slide titled "Incident" with a world map background. The text on the slide asks, "What is the difference between an **incident** and an **emergency**?" The slide is numbered "Slide 10" in the bottom left corner. It features two small circular logos in the bottom right corner.

What is the difference between an **incident** and an **emergency**?

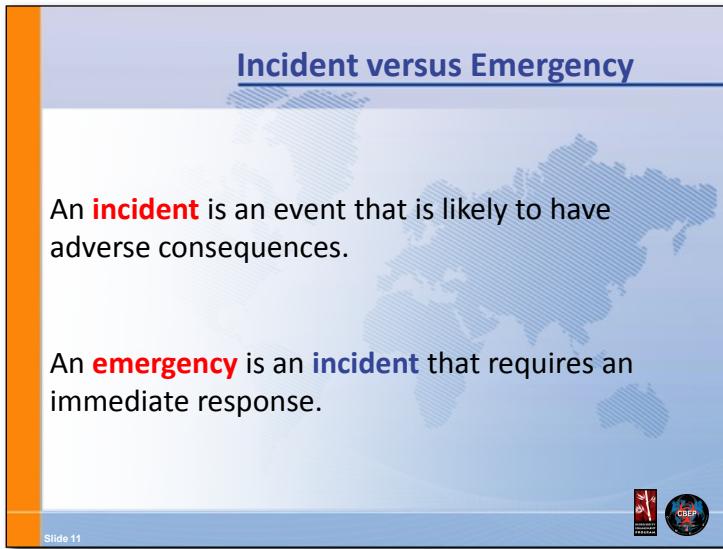
Slide 10



Introduction to Incident Management & Response

Incidents

Notes:

A slide titled "Incident versus Emergency" with a world map background. It defines an incident as an event likely to have adverse consequences and an emergency as an incident requiring immediate response. Logos for PHE and CHEP are at the bottom right.

Incident versus Emergency

An **incident** is an event that is likely to have adverse consequences.

An **emergency** is an **incident** that requires an immediate response.

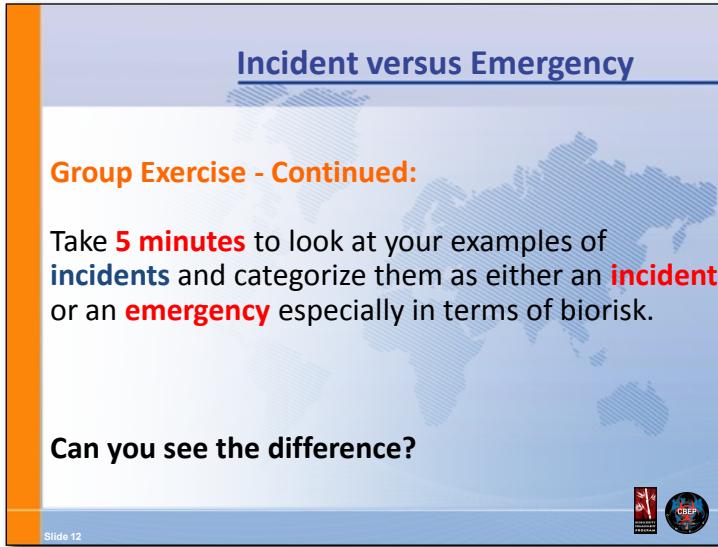
Slide 11



Introduction to Incident Management & Response

Incidents

What is the difference between an incident and an emergency?



Incident versus Emergency

Group Exercise - Continued:

Take **5 minutes** to look at your examples of **incidents** and categorize them as either an **incident** or an **emergency** especially in terms of biorisk.

Can you see the difference?

Slide 12

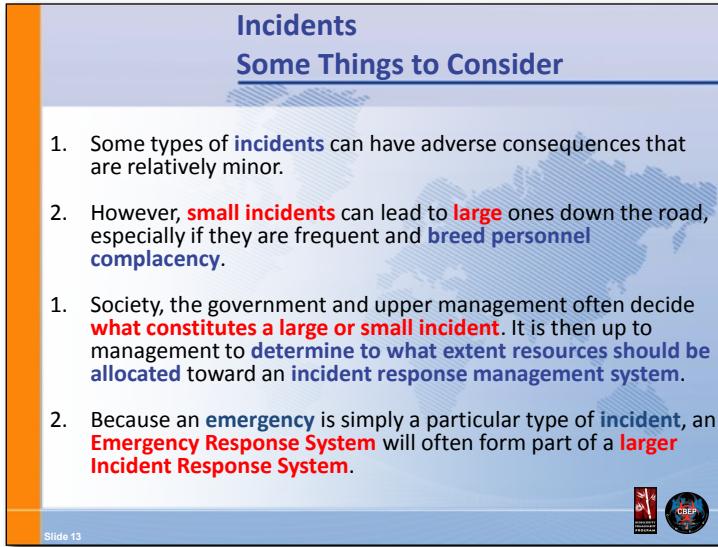
 



Introduction to Incident Management & Response

Incidents

Notes:

A slide titled 'Incidents' with a sub-section 'Some Things to Consider'. It contains a bulleted list of 5 points. The slide has a blue header and footer, and a decorative background of chemical structures. Logos for 'CHEP' and 'Hazardous Materials' are in the footer.

Incidents

Some Things to Consider

1. Some types of **incidents** can have adverse consequences that are relatively minor.
2. However, **small incidents** can lead to **large** ones down the road, especially if they are frequent and **breed personnel complacency**.
1. Society, the government and upper management often decide **what constitutes a large or small incident**. It is then up to management to **determine to what extent resources should be allocated** toward an **incident response management system**.
2. Because an **emergency** is simply a particular type of **incident**, an **Emergency Response System** will often form part of a **larger Incident Response System**.

Slide 13



Introduction to Incident Management & Response

What is an Incident Response System?

Incident Response System

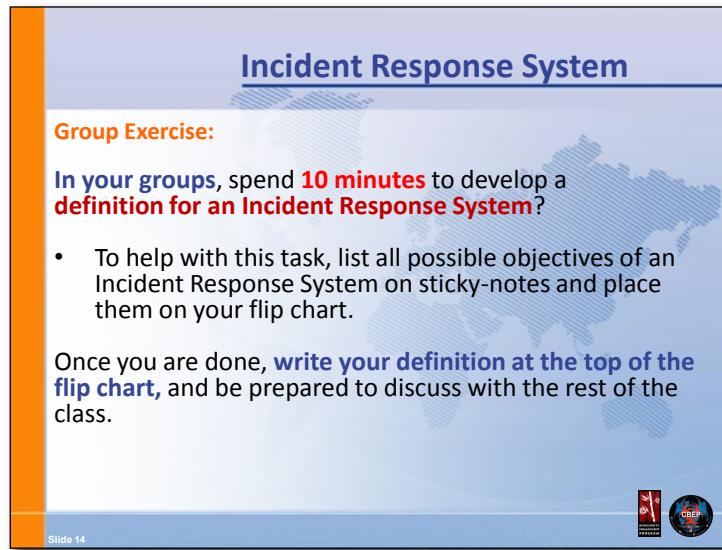
Group Exercise:

In your groups, spend **10 minutes** to develop a **definition for an Incident Response System?**

- To help with this task, list all possible objectives of an Incident Response System on sticky-notes and place them on your flip chart.

Once you are done, **write your definition at the top of the flip chart**, and be prepared to discuss with the rest of the class.

Slide 14

A slide titled 'Incident Response System' with a blue header and a world map background. It contains text for a group exercise, a bullet point, and a note about writing a definition. The slide is labeled 'Slide 14' at the bottom.

What is an Incident Response System?

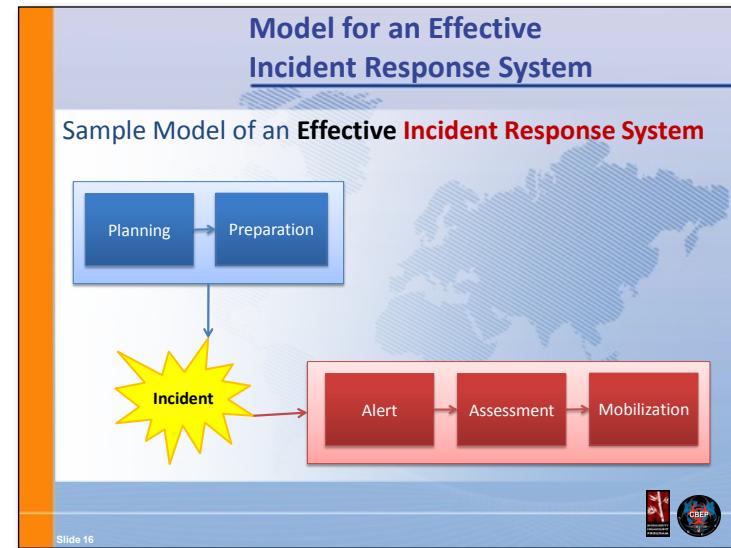
Definition:

Objectives:



Introduction to Incident Management & Response

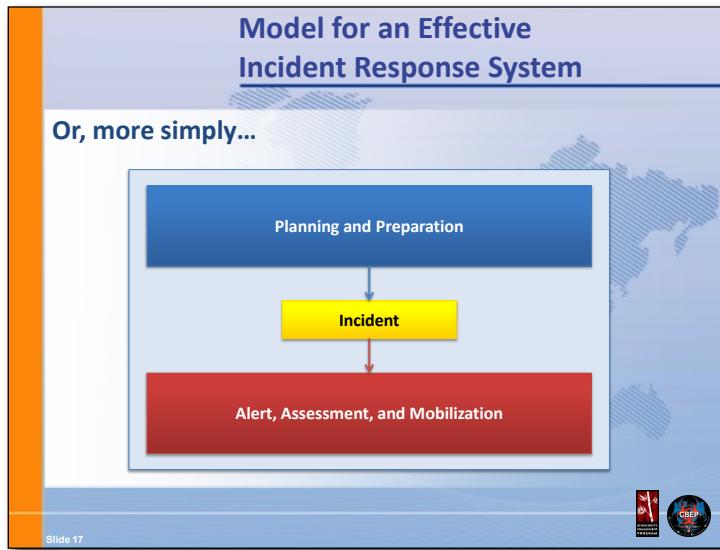
What is an Incident Response System?





Introduction to Incident Management & Response

What is an Incident Response System?



Incident Response System

The most **effective incident response systems** can **plan and prepare** for potential incidents, **alert** and **assess** actual incidents, and quickly **mount an effective response** if an incident occurs.

Slide 18



Introduction to Incident Management & Response

What is an Incident Response System?

Examples:



The slide features a title 'The Phases of an Incident Response System' at the top. Below it, a text box states: 'Thus, we could consider an **effective incident response system** as concerning itself with three main phases:'. The three phases are listed vertically: 'Planning and Preparation' (blue square), 'Incident' (yellow square), and 'Alert, Assessment, and Mobilization' (red square). The background of the slide is a world map with a blue and white color scheme. The bottom right corner contains two small logos: 'PROFESSIONAL PRACTICE' and 'CIEP'.

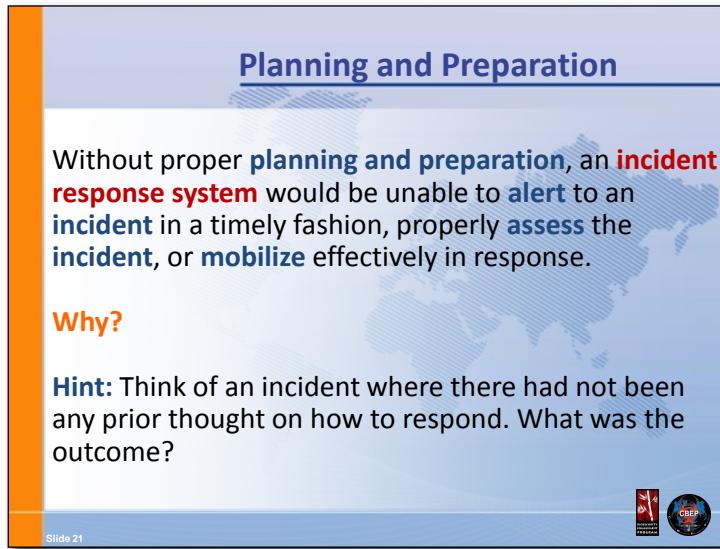
Slide 19



Introduction to Incident Management & Response

Planning & Preparation

Why are Planning and Preparation so important?

A slide titled "Planning and Preparation" with a world map background. The text discusses the importance of planning and preparation for incident response. It includes a "Why?" section and a hint about an incident without prior thought. Logos for the University of Alberta and CHEP are at the bottom.

Planning and Preparation

Without proper **planning and preparation**, an **incident response system** would be unable to **alert** to an **incident** in a timely fashion, properly **assess** the **incident**, or **mobilize** effectively in response.

Why?

Hint: Think of an incident where there had not been any prior thought on how to respond. What was the outcome?

Slide 21



Introduction to Incident Management & Response

Planning & Preparation

Planning

What exactly is **planning**?

Slide 22



Planning

Planning is the development of mechanisms or procedures, in advance, to achieve a particular goal.

Slide 23





Introduction to Incident Management & Response

Planning & Preparation

Planning

In the case of **incident response**, planning is the process whereby a potential **incident** is **considered** and **evaluated**, and resources **are assigned**, in order to **generate** a response that will appropriately **mitigate** any adverse effects.

Slide 24

Planning

Incident response planning is normally the responsibility of an institution's **management**.

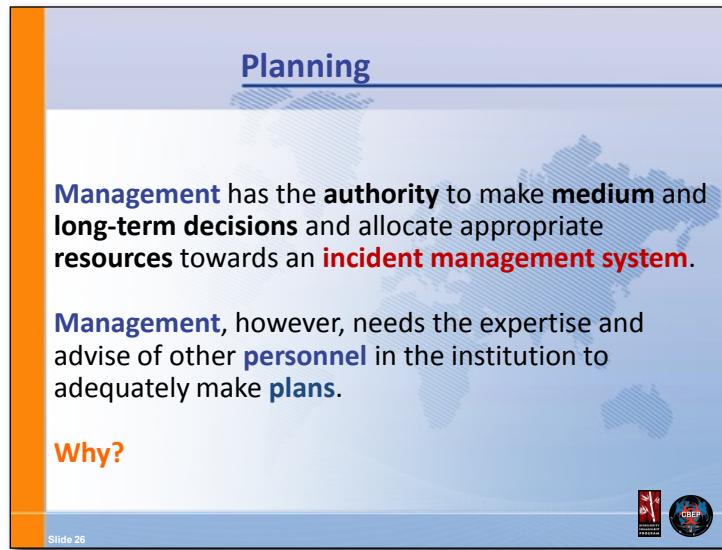
Top level **decision-makers** must come together to determine the best approach for handling **incidents** in a particular institution.

Slide 25



Introduction to Incident Management & Response

Planning & Preparation



Planning

Management has the authority to make medium and long-term decisions and allocate appropriate resources towards an incident management system.

Management, however, needs the expertise and advise of other personnel in the institution to adequately make plans.

Why?

Slide 26

 CHEP

What is the role of Management in Incident Management & Response?



Introduction to Incident Management & Response

Planning & Preparation

Planning

Group Exercise:

In your groups, spend **10 minutes** to **identify all the personnel** in an institution who could contribute to management's decisions during the planning phase of an incident response management system?

- Put each answer on a **sticky-note** and place them on your flip chart.
- Next to each personnel group, **list their role/contribution** to the planning process

Be prepared to discuss with the rest of the class.

Slide 28

The logo for CHEP (Chemical Emergency Preparedness) is located at the bottom right of the slide. It features a stylized orange and blue design with the acronym 'CHEP' in the center.

Who can contribute to the Planning of an Incident Response System?

What is their contribution/role?



Introduction to Incident Management & Response

Planning & Preparation

Planning

Often, **management** can develop high-level policy and delegate details to those **personnel** more familiar with daily operations and technical work.

Slide 29

Planning

Planning should result in a **document**, developed by **management** in cooperation with an institution's **personnel** (and others), that outlines, at a high-level, how the **incident management system** will operate.

Slide 30



Introduction to Incident Management & Response

Planning & Preparation

Planning

The **document** should also contain further, specific details on **preparation, alert, assessment, and response** to an incident.

Slide 31

Preparation

What exactly is **preparation**?

Slide 32



Introduction to Incident Management & Response

Planning & Preparation

Preparation

Preparation derives directly from **planning**. It is the act of putting into effect an institution's **plans** prior to an **incident**, in order to be in a position to better handle that **incident** when it does occur.

Slide 33



Preparation

The **Preparation** process includes **training of personnel**, acquisition of **equipment**, storing of **supplies**, and **physical modifications** to equipment and **buildings** when possible, and desirable.

Slide 34





Introduction to Incident Management & Response

Planning & Preparation

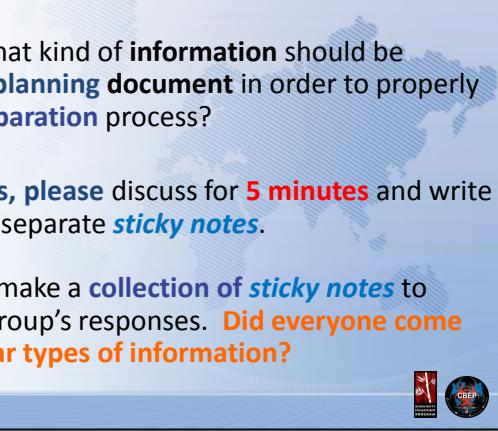
Preparation

Question: What kind of **information** should be included in a **planning document** in order to properly guide the **preparation** process?

In your groups, please discuss for **5 minutes** and write your ideas on separate **sticky notes**.

The class will make a **collection of sticky notes** to review each group's responses. **Did everyone come up with similar types of information?**

Slide 35



What type of information would be useful to be included in a planning document to guide the preparation process?



Introduction to Incident Management & Response

Planning & Preparation

Preparation

Think about the different types of **personnel** who work in a typical **lab** or **institution**.

Question: How should each of these be involved in the **preparation** process?

Please **discuss** for **5 minutes** at your **tables** and be prepared to share with the class.

CBP

Who can contribute to the Preparation of an Incident Response System?

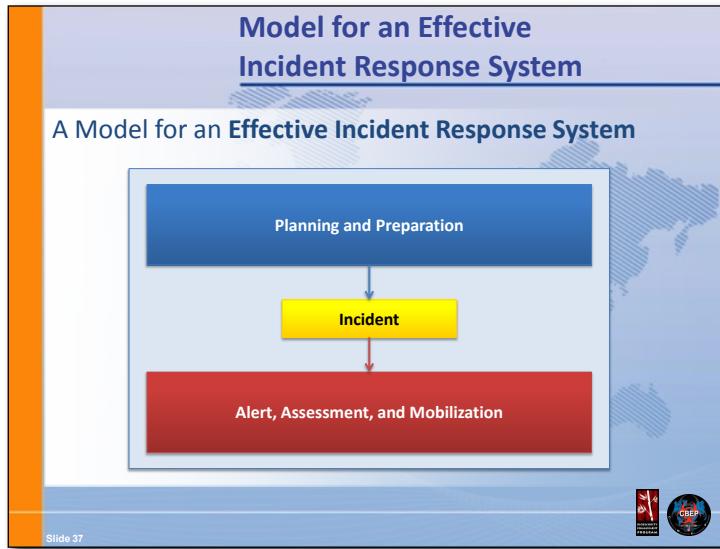
What is their contribution/role?



Introduction to Incident Management & Response

Planning & Preparation

Notes:



Slide 37



Introduction to Incident Management & Response

Drills

How to Test an Incident Response System?

How can you test an Incident Response System?



Introduction to Incident Management & Response

Drills

How to Test an Incident Response System? - Drills

Question?

How do you make sure an **Incident Response System** is actually working?

One way is by conducting **drills**.

Drills allow verification of whether a system is prepared to respond adequately to an **incident**, without actually putting a **facility** and its **personnel** at risk.

Slide 39

The logo for the Chemical Emergency Preparedness and Response Team (CHEP) is located at the bottom center of the slide. It features a circular design with the acronym 'CHEP' in the center, surrounded by a ring of smaller text and symbols.

How do drills help to validate an Incident Response System?



Introduction to Incident Management & Response

Drills

Notes:

Incident Response Systems

Thus, it is unreasonable to rely only on incidents to determine the effectiveness of an **Incident Response System**, instead Drills are used to simulate incidents.

Planning and Preparation

Incident and Drills

Alert, Assessment, and Mobilization

Slide 40

NFPA CCPS



Introduction to Incident Management & Response

Drills

Drills

Group Exercise:

Question: What different kinds of **drills** can an **institution** use to test their **incident response system**, especially in terms of incidents impacting biorisk?

Take **5 minutes** to discuss the question and **make a table**, on your flip chart, **listing the advantages and disadvantages of each kind of drill**. Be prepared to share your discussion with the class.

Slide 41



List some different types of drills

Advantages?

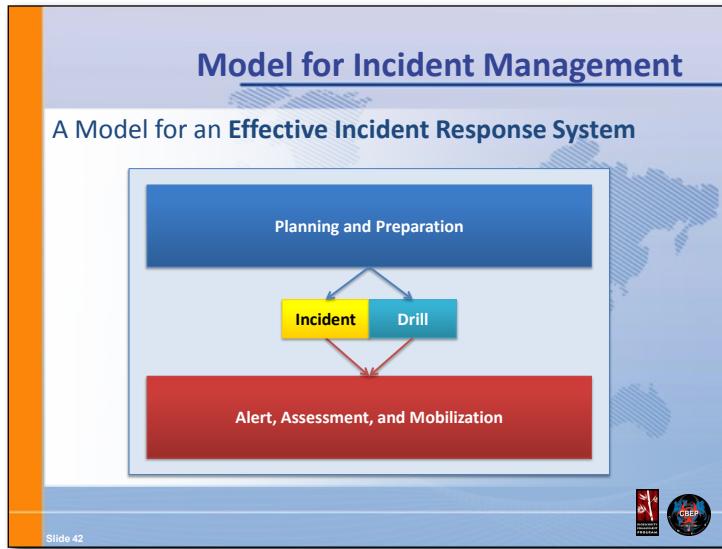
Disadvantages?



Introduction to Incident Management & Response

Alert, Assessment and Mobilization

Notes:





Introduction to Incident Management & Response

Alert, Assessment and Mobilization

Alert

Alerting is the process of identifying an **incident** as it is occurring, or after it has occurred, and using that information to **generate a response**.

Questions:
What are some ways one could **alert**?
Who would you **alert**?

Slide 43

A world map graphic showing the outlines of continents against a blue background.The CHEP logo, featuring a stylized orange and blue design with the letters 'CHEP' in the center.

What are some ways one could alert?

Who would you alert?



Introduction to Incident Management & Response

Alert, Assessment and Mobilization

Notes:

Alert

An institution's **incident response plan**, as developed by **management**, should address **procedures** for alerting appropriate **personnel** in the event of an **incident**.



Introduction to Incident Management & Response

Alert, Assessment and Mobilization

Alert

Question: How would one determine whether alerting should occur during an **incident**, or after the **incident**?

Please consider this question for **5 minutes** and be prepared to discuss with the class.

Hint: What are the key factors about the incident that would make a difference about when to alert?

Slide 45

The logo for the Chemical Emergency Preparedness and Response Team (CHEP) is located at the bottom right of the slide. It features a stylized orange and blue design with the acronym 'CHEP' in the center.

When does alerting happen during the incident?

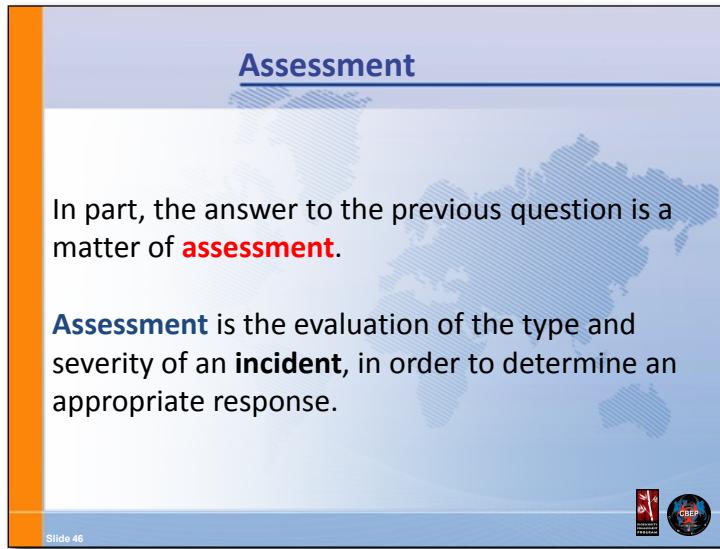
When does alerting happen after the incident?



Introduction to Incident Management & Response

Alert, Assessment and Mobilization

How does Assessment play a role in an Incident Response System?

A slide titled 'Assessment' with a world map background. The text discusses the role of assessment in incident response. The slide is part of a presentation, as indicated by the 'Slide 46' footer.

Assessment

In part, the answer to the previous question is a matter of **assessment**.

Assessment is the evaluation of the type and severity of an **incident**, in order to determine an appropriate response.

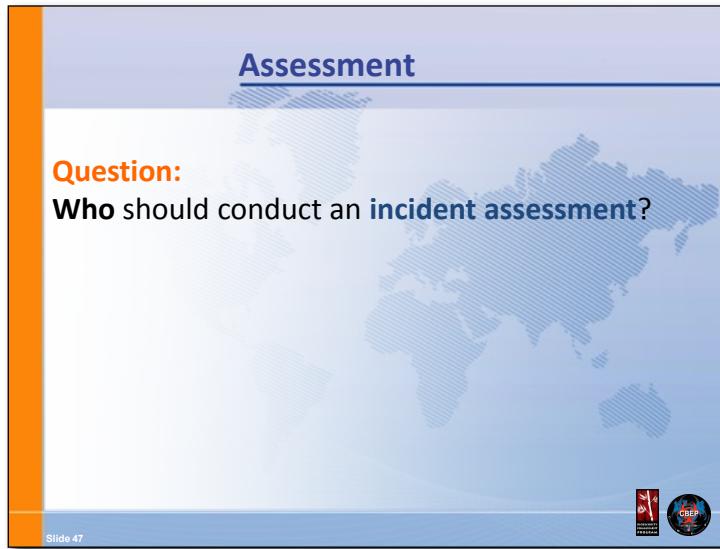
Slide 46



Introduction to Incident Management & Response

Alert, Assessment and Mobilization

Who should conduct an Incident Assessment?

A slide titled 'Assessment' with a world map background. The text 'Question: Who should conduct an incident assessment?' is displayed. Logos for 'INDUSTRIAL FIRE' and 'CIFEP' are in the bottom right corner. The slide is identified as 'Slide 47' in the bottom left corner.

Assessment

Question:
Who should conduct an **incident assessment**?

Slide 47



Introduction to Incident Management & Response

Alert, Assessment and Mobilization

Assessment

Question: How do you assess an **incident**?

In your tables, please consider this question for **5 minutes**, and list all the criteria by which an incident can be assessed. Put each criteria on a sticky-note.

Slide 48

 CHEP

How would you assess an incident?

What factors would you consider?

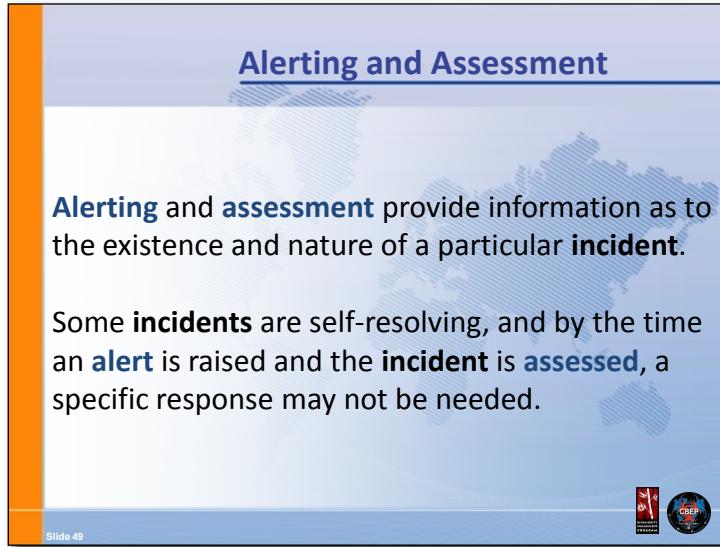
What are the criteria you would use?



Introduction to Incident Management & Response

Alert, Assessment and Mobilization

Notes:

A slide titled "Alerting and Assessment" with a blue header and a white body. The body contains text about alerting and assessment, incidents, and self-resolving incidents. It also features the CHEP logo at the bottom right.

Alerting and **assessment** provide information as to the existence and nature of a particular **incident**.

Some **incidents** are self-resolving, and by the time an **alert** is raised and the **incident** is **assessed**, a specific response may not be needed.

Slide 49



Introduction to Incident Management & Response

Alert, Assessment and Mobilization

Mobilization

Mobilization is the activation of **personnel** and use of **equipment** to respond directly to an **incident** and hasten its **resolution**.

Question: What are some factors that determine the mobilization?

Slide 50



What is Mobilization?

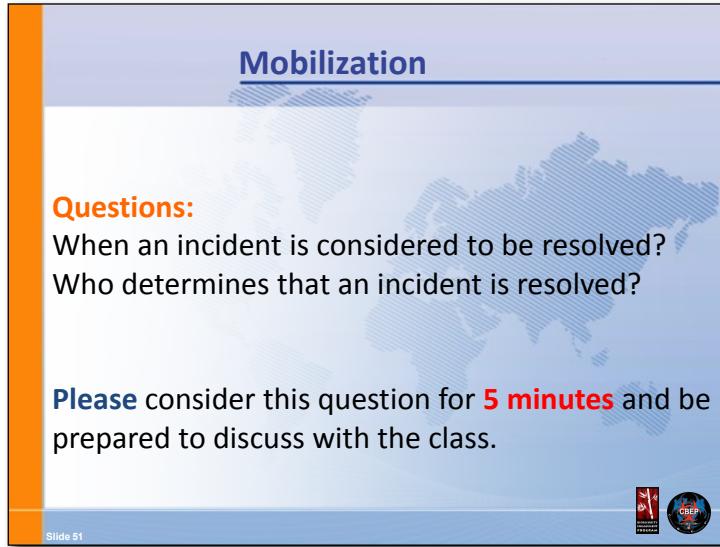
What are some factors that determine the mobilization?



Introduction to Incident Management & Response

Alert, Assessment and Mobilization

When and who determines when an incident is resolved?

A slide titled 'Mobilization' with an orange vertical bar on the left. It contains the following text:

Questions:
When an incident is considered to be resolved?
Who determines that an incident is resolved?

Please consider this question for 5 minutes and be prepared to discuss with the class.

Slide 51

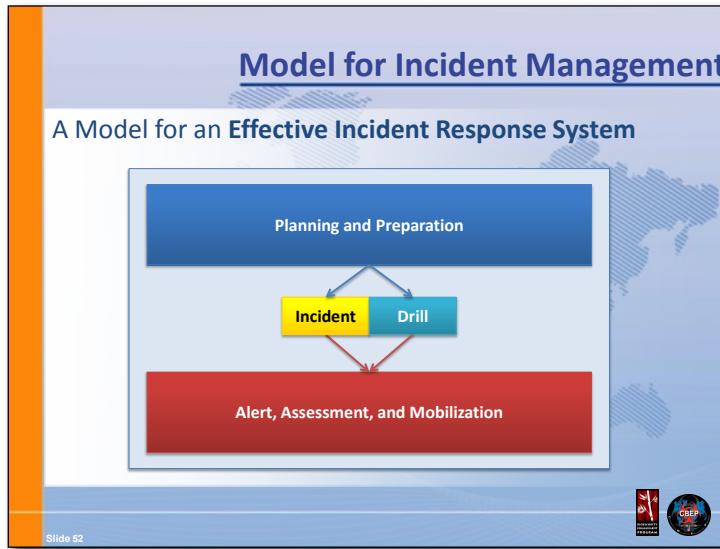
Two small circular logos are at the bottom right: one for 'CHEP' and another for 'PROFESSIONAL PRACTICE'.



Introduction to Incident Management & Response

Feedback

Notes:





Introduction to Incident Management & Response

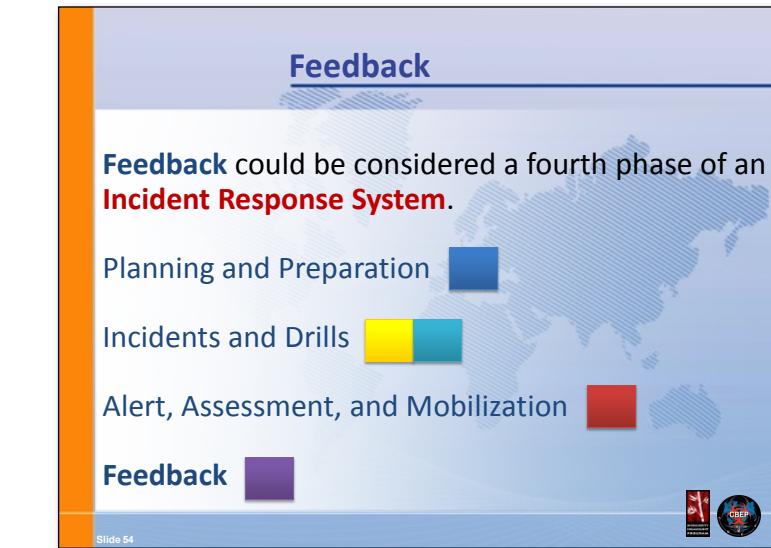
Feedback

Feedback

Feedback is the use of **information** gathered from **drills** or **incidents** to inform and improve an **Incident Response System**.

Specifically, **feedback** informs the **planning and preparation** process, providing information to **management** and other **personnel** on what procedures were and were not effective in mitigating the adverse consequences of incidents (or drills).

Slide 53

A diagram showing the four phases of an Incident Response System: Planning and Preparation (blue square), Incidents and Drills (yellow and teal squares), Alert, Assessment, and Mobilization (red square), and Feedback (purple square). The Feedback phase is highlighted in purple.

Slide 54

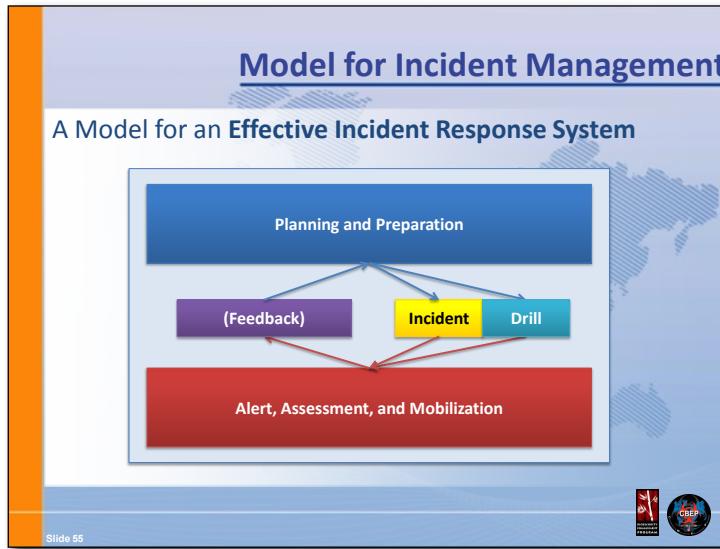




Introduction to Incident Management & Response

Feedback

Notes:



Slide 55



Introduction to Incident Management & Response

Feedback

Feedback

Question: What types of information are necessary to provide feedback that addresses the strengths and weaknesses – success and failures – of the current incident response system?

Please spend **10 minutes** discussing the question in **your table**, and be prepared to share your thoughts with the class.

Hint: List 7 to 10 questions you would ask after a drill or incident to help gather this information.

Slide 56



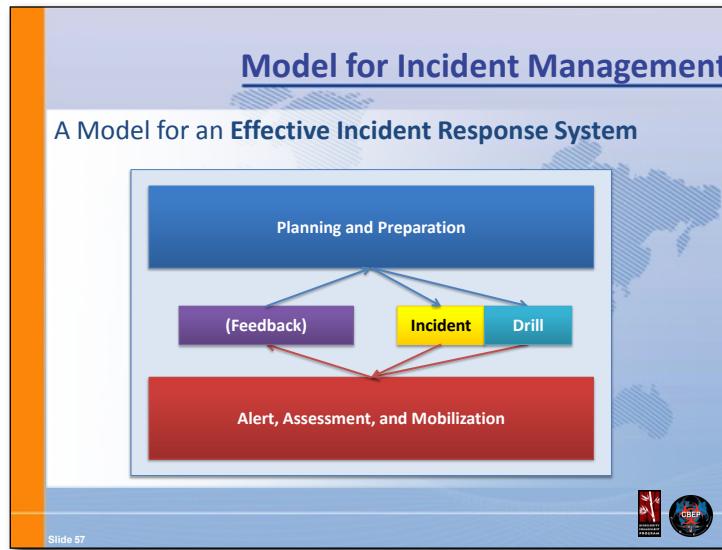
What types of feedback helps strengthen the Incident Response System?

What are some questions you would ask after a drill or incident?



Introduction to Incident Management & Response

Outside Coordination



Outside Responders

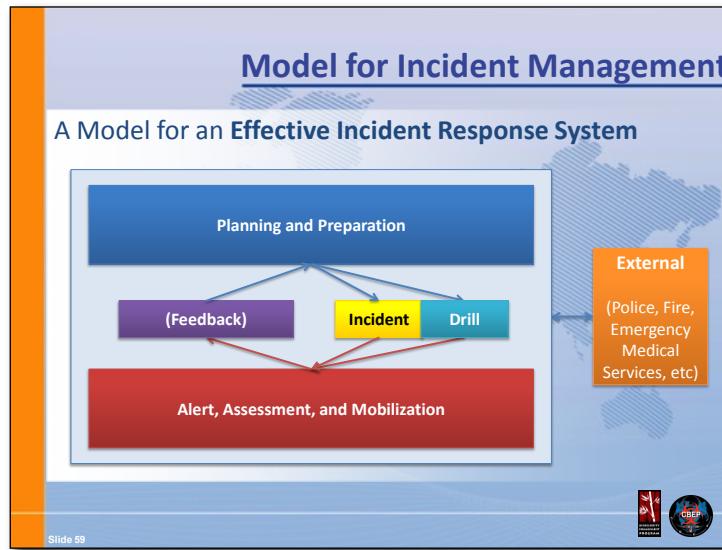
As part of both **planning and preparation** as well as **alerting, assessment, and response**, an **incident response system** must interact with the **outside world** in order to properly manage serious incidents.

Slide 58



Introduction to Incident Management & Response

Outside Coordination



Outside Responders

It is often not economical for an **institution** to develop the capacity to respond to large, infrequent **incidents** and **emergencies** completely on its own.

Also, depending on the laws of the jurisdiction that an institution is located in, there might be certain kinds of incidents that the institution cannot respond to.

Thus, coordination with **police, fire brigades, and emergency medical services** are crucial for effective **incident response**.

Slide 60



Introduction to Incident Management & Response

Outside Coordination

Outside Coordination

Question: How would **outsiders** such as the **fire brigade** interact with an institution during each of these incident response system phases?

- Planning and Preparation
- Alert & Assessment
- Mobilization
- Feedback

In your tables, please spend **10 minutes** discussing these questions and be prepared to share your table's thoughts with the class.

Slide 61

How do outsiders interact with an institution during each of the Incident Response System Phases?

Planning and Preparation?

Alert & Assessment?

Mobilization?

Feedback?



Introduction to Incident Management & Response

Review

Review

Review Question: What are the four phases of an effective **Incident Response System**?



Slide 62

Review

Review Question:

What is the difference between an **Emergency Response System** and an **Incident Response System**?



Slide 63



Introduction to Incident Management & Response

Review

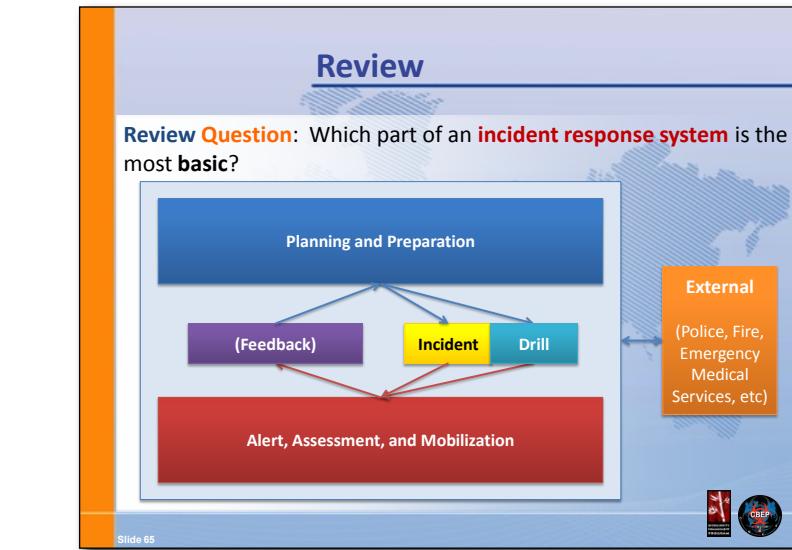
Review

Review Question: Do you agree with this **table**? Why or why not?

Responsibilities in an **Incident Response System**

	Management	Other Personnel
Planning and Preparation	Yes	No
Alerting, Assessment, and Response	Yes	Yes
Feedback	Yes	Yes

Slide 64



Slide 65





Introduction to Incident Management & Response

Review

Notes:

Review

Review Question:

Why is **outside coordination** so important for an **incident response system**?



Introduction to Incident Management & Response

Review

Review of Introduction to Incident Management & Response

Review

For **10 minutes**, let's discuss what we have learned about **incident response systems**.

What did we learn? What does it mean? Where do we go from here?

Slide 67

The slide features a blue background with a faint world map. The title is in a dark blue font. The main text is in a larger, bold, dark blue font. The three questions are in white text on red rectangular backgrounds. The CHEP logo is in the bottom right corner.



Introduction to Incident Management & Response

Review

Review - Course Objectives

- Understand the components and structure of an incident response system, including the roles and responsibilities of personnel involved in planning and notification of an incident.
- To know how to determine the effectiveness of an incident response system, why it is important, and how drills and exercises can be used to test the function and effectiveness of the system.
- Feel part of a team that can provide expertise and consultation on an incident response system as well as identify stakeholders to contribute to an incident response system.
- Determine how to implement an incident response system, including planning and preparation.

Slide 68

The logo for the Chemical Emergency Preparedness (CHEP) program, featuring a stylized orange and red flame-like design above the acronym "CHEP" in a bold, sans-serif font.