GBRMC

# Personal Protective Equipment

## Student Guide

2012

GLOBAL BIORISK MANAGEMENT CURRICULUM

## *Personal Protective Equipment (PPE)*


Welcome to Personal Protective Equipment!


GBRMC
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? |
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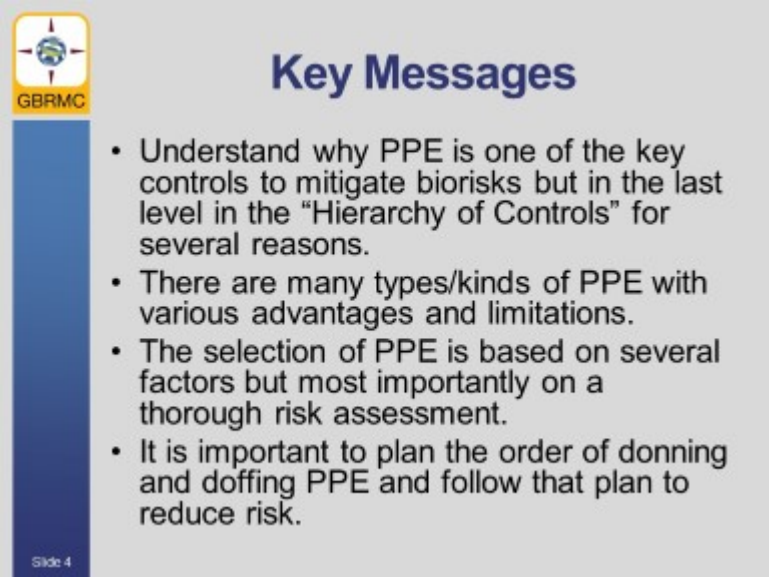
*Use space on back, if needed*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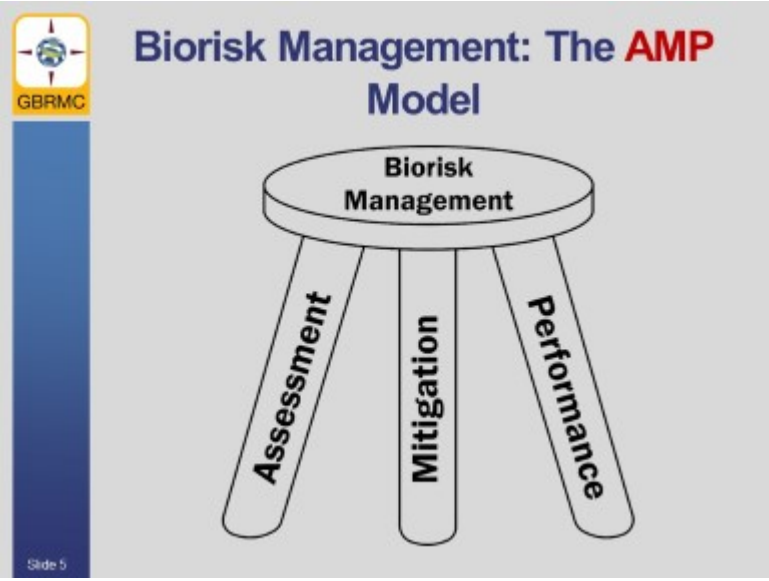
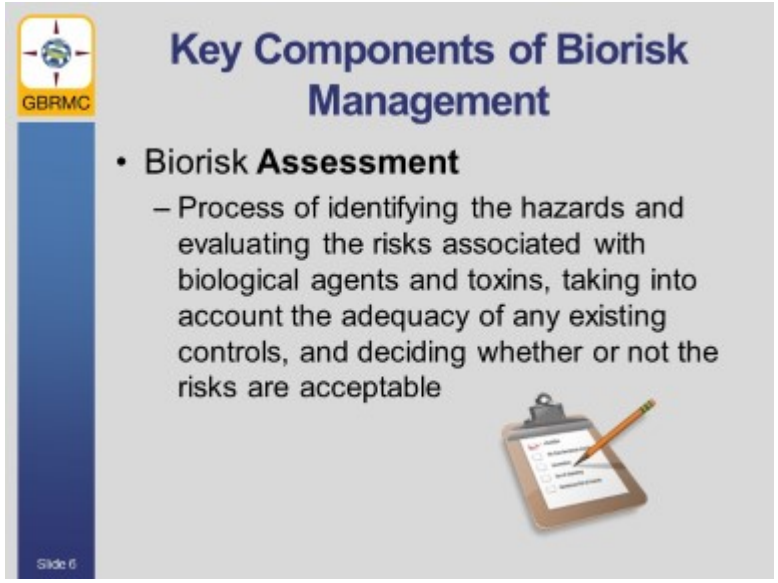
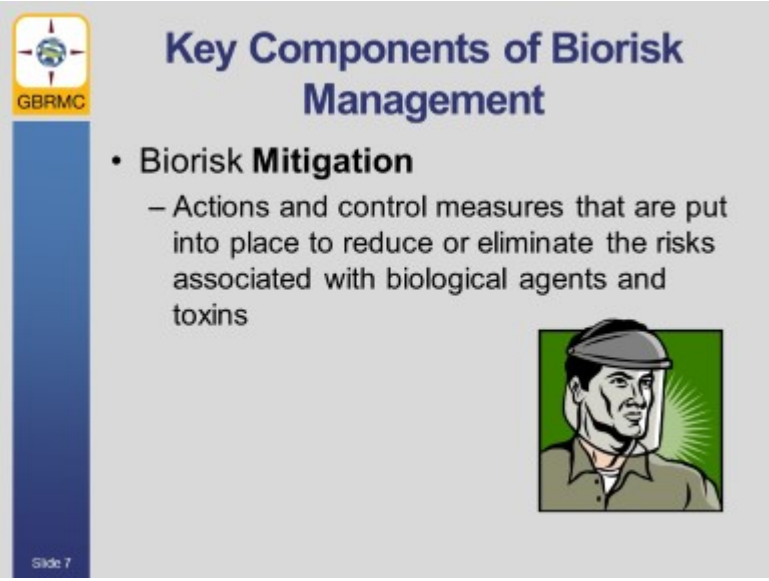
Key Messages
• Understand why PPE is one of the key controls to mitigate biorisks but in the last level in the "Hierarchy of Controls" for several reasons.
• There are many types/kinds of PPE with various advantages and limitations.
• The selection of PPE is based on several factors but most importantly on a thorough risk assessment.
• It is important to plan the order of donning and doffing PPE and follow that plan to reduce risk.
Slide 4




Record refresher notes on the AMP model and biorisk management.




Define Biorisk Assessment:




Define Biorisk Mitigation:


Define Performance:


List examples of the following controls:

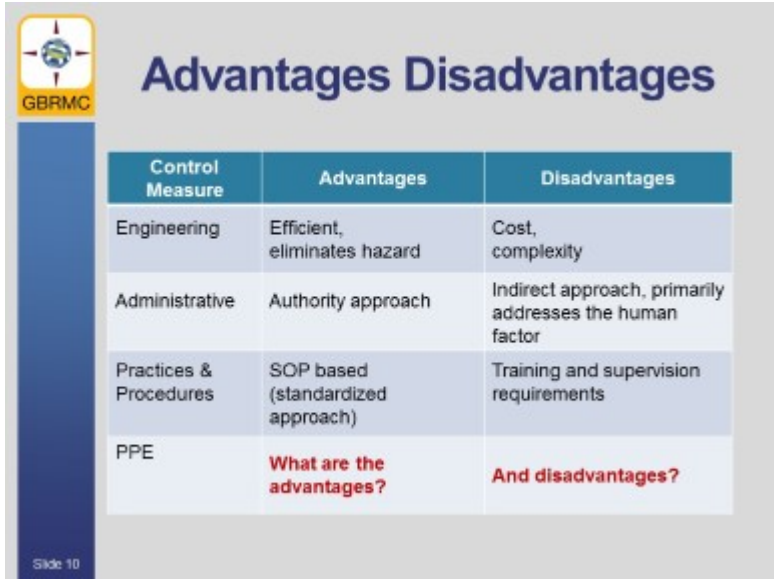
Engineering controls:

Administrative controls:

Practice and Procedures:

PPE:

## *Personal Protective Equipment (PPE)*

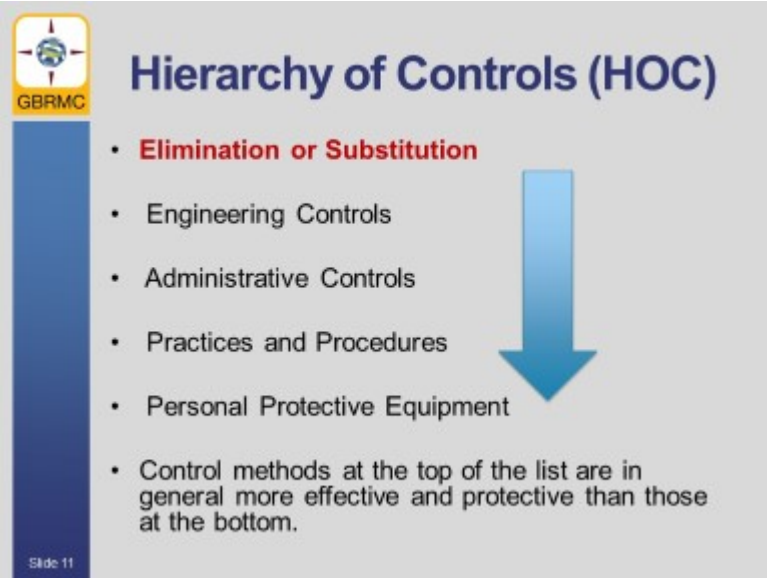



Record some advantages and disadvantages to PPE:

- Advantages

- Disadvantages

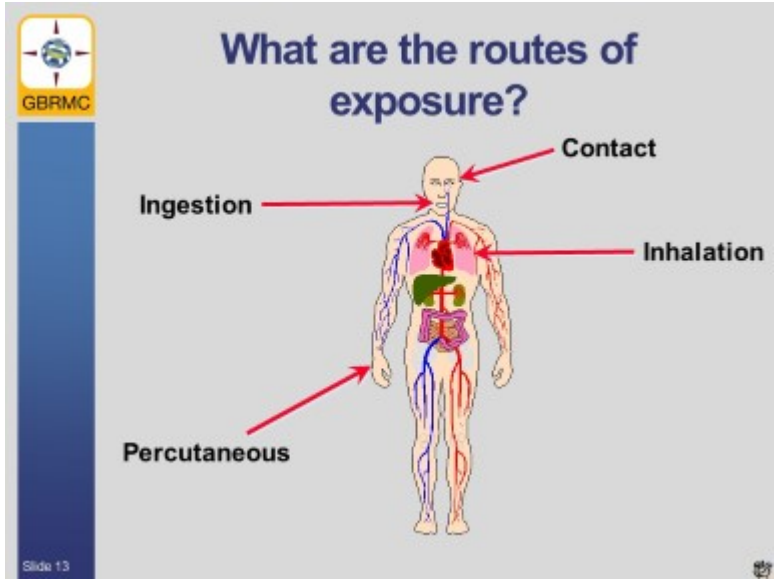
## *Personal Protective Equipment (PPE)*




- **Using personal protective equipment is often essential, but it is generally the last line of defense** after engineering controls, work practices, and administrative controls.
- The use of PPE signifies that the hazard could not be controlled by other methods.
- PPE only protects the person wearing it, unprotected workers in the same area will be exposed.
- PPE compliance depends on human reliability. Failure of PPE means that the worker “will be” exposed.
- PPE may restrict the wearer to some extent by limiting mobility or visibility, or by requiring additional weight to be carried. Thus creating additional hazards.

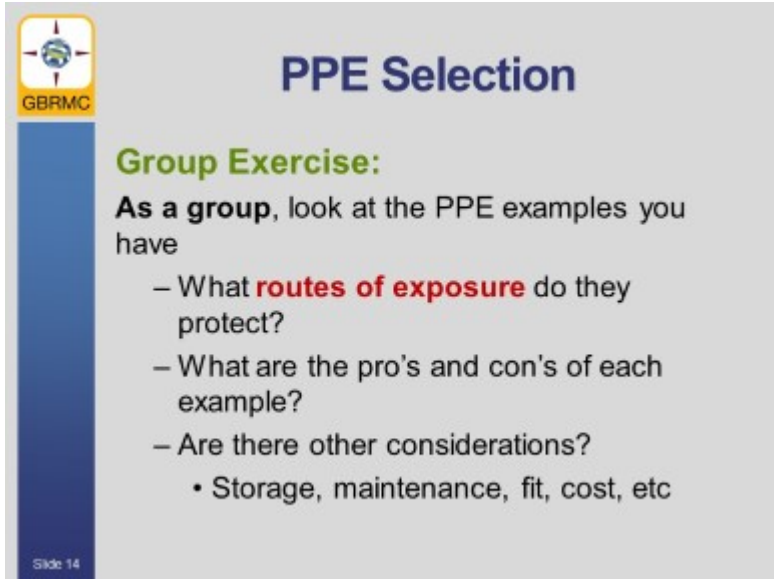

- Engineering systems are similar to safety systems in vehicles

- Motorcycle safety equipment reflects the role of PPE in biosafety




Areas of exposure include:

- Ingestion
- Contact
- Inhalation
- Percutaneous

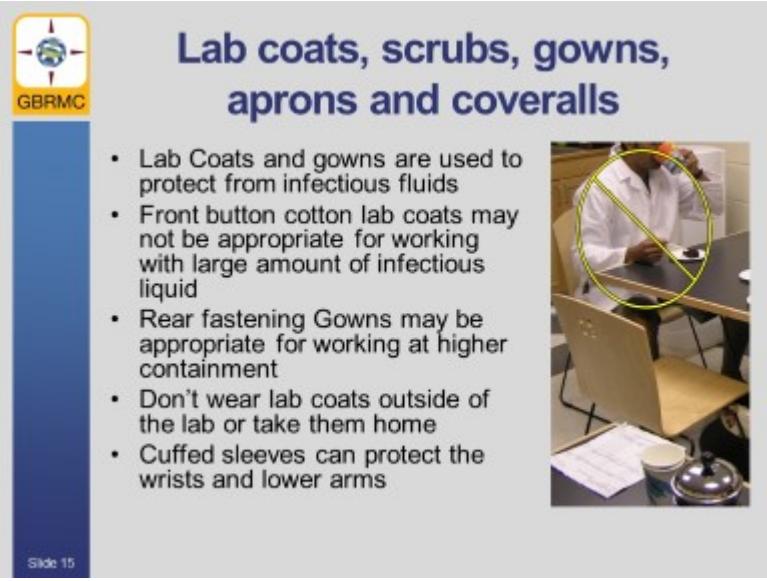



PPE Item:

Protection Provided:

Pro's and Con's:

Other Considerations:

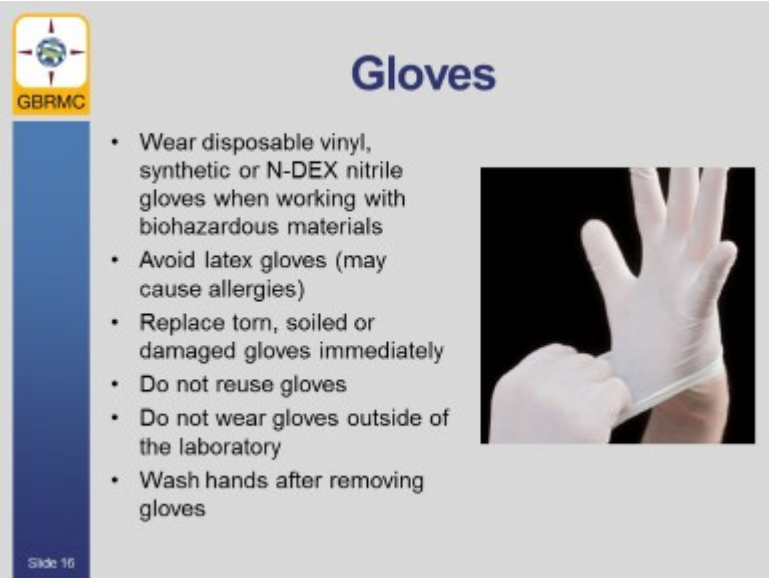



PPE Item: Lab Coat

Protection Provided:

Pro's and Con's:

Other Considerations:




PPE Item: Gloves, Head, and Foot Protection

Protection Provided:

Pro's and Con's:

Other Considerations:


**Gloves** need to **removed** before handling "common" areas of the lab.

Note some common areas:

- 
- 
- 
- 

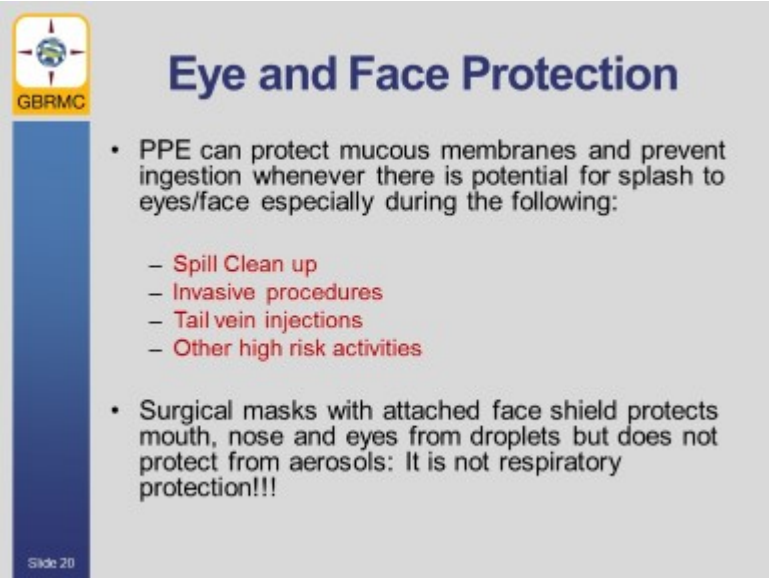

Contamination can occur during removal of PPE.

Understanding the purpose of PPE will aid in removal.

- Always be aware of which parts of the equipment are contaminated and which areas are not

Note some common practices of removing PPE:


Note appropriate protection:




PPE Item: Eye and Face protection

Protection Provided:

Pro's and Con's:

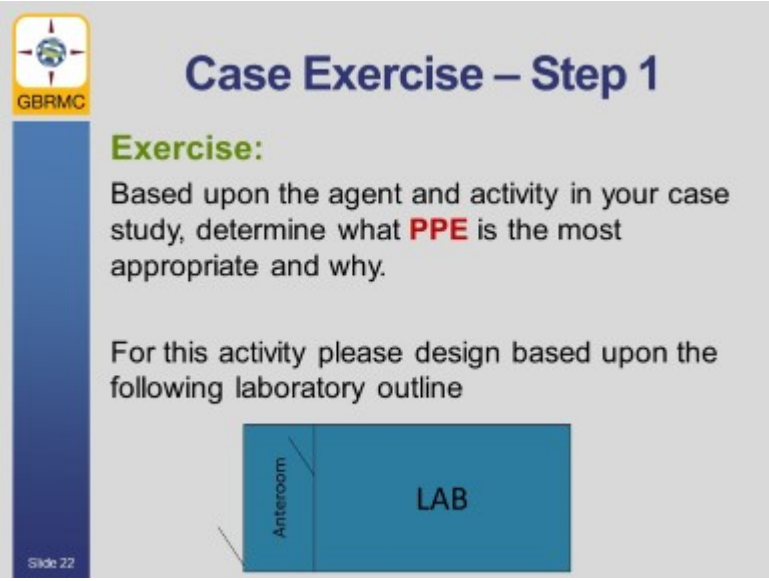
Other Considerations:


PPE Item: Respiratory Protection

Protection Provided:

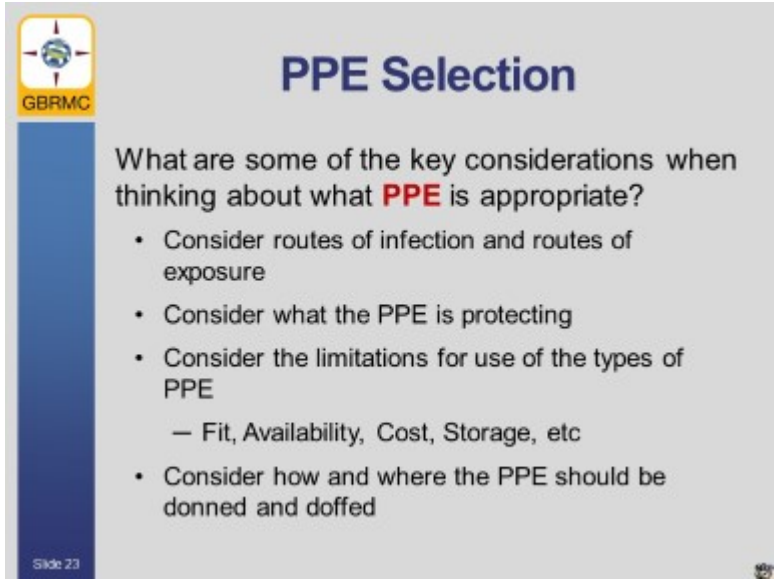
Pro's and Con's:

Other Considerations:



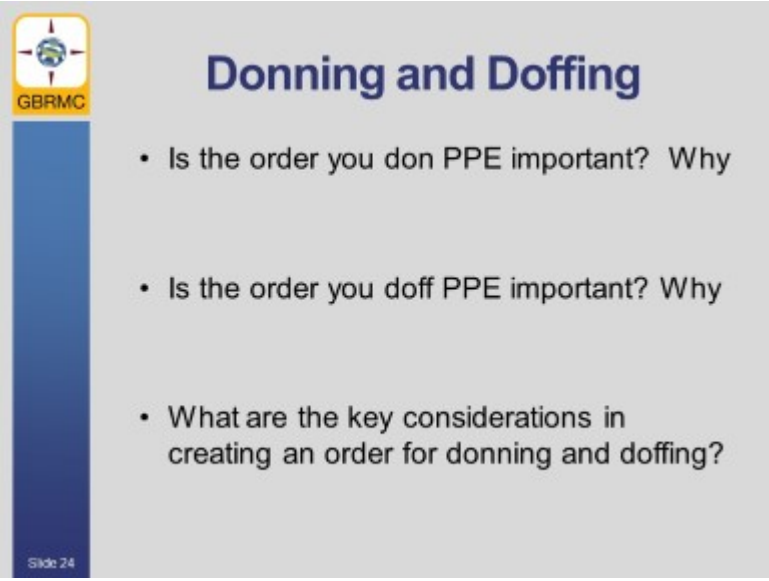

What agent and activity were you given?

What PPE did you choose?




Key Considerations:

- Routes of Infection
- Provided Protection
- Limitations
- Donning and Doffing

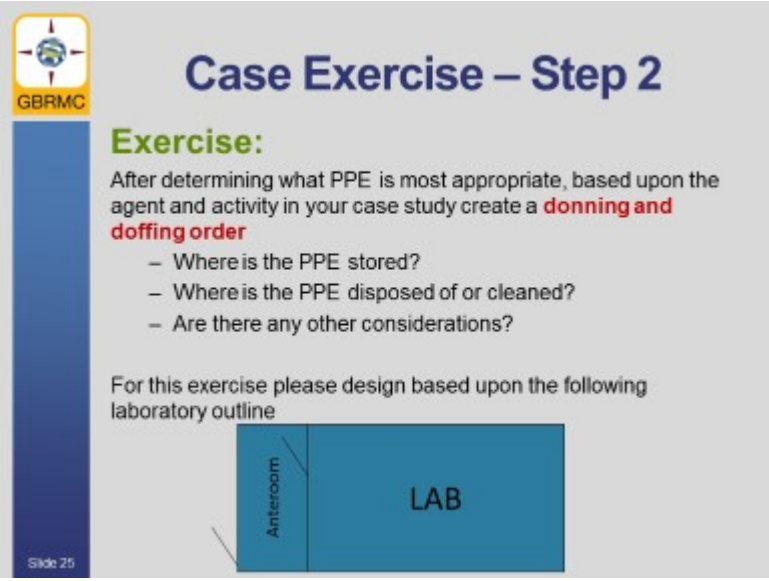



Donning PPE:

- Importance of Order

Doffing PPE

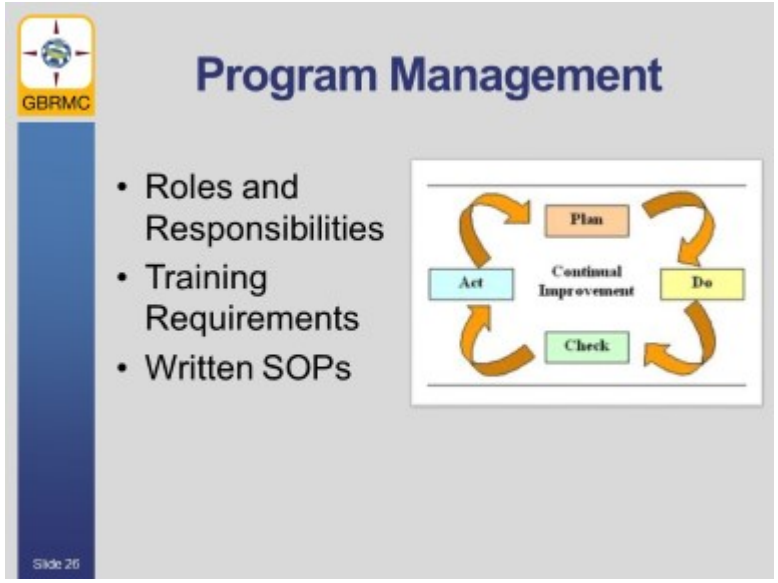
- Importance of Order




Where is the PPE stored?

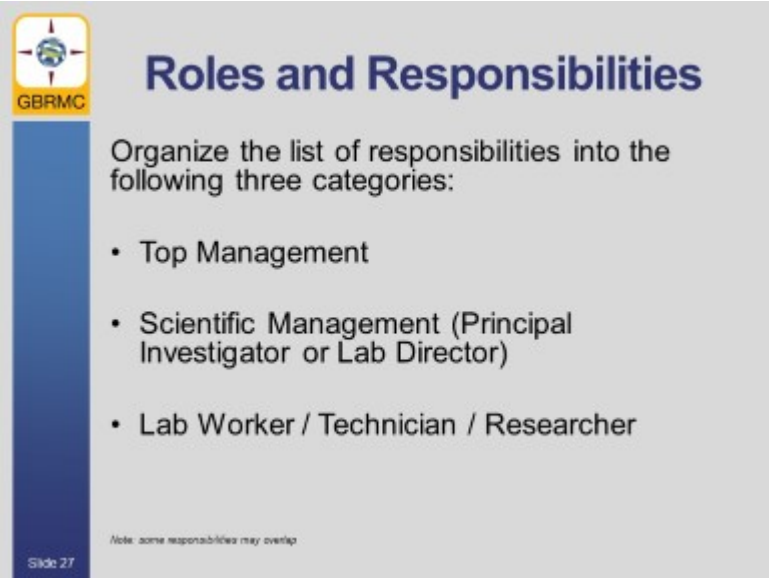
Where is the PPE disposed of or cleaned?

Are there any other considerations?




Examples of the following:

- Plan
- Do
- Check
- Act

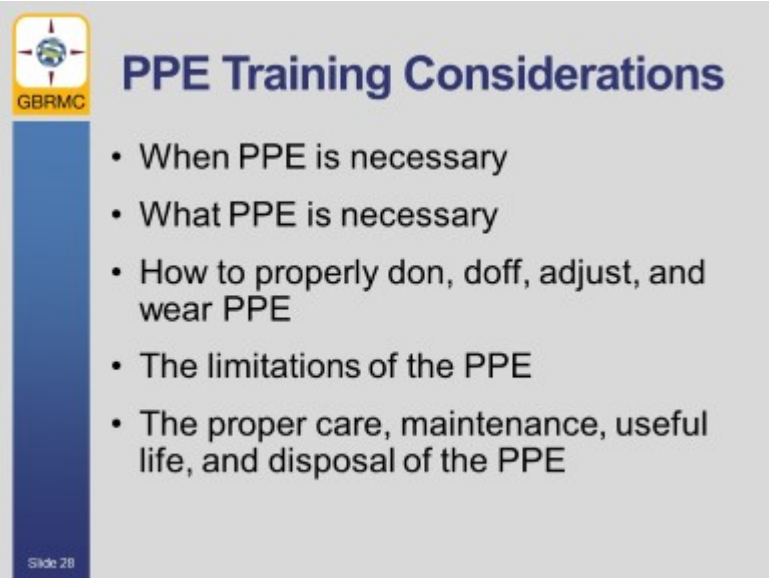



Record some responsibilities for each category:

Top Management:

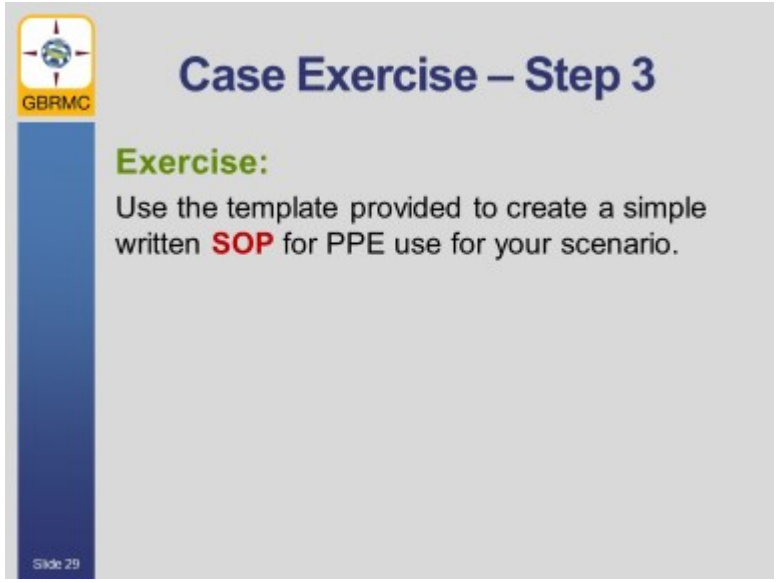
Scientific Management:

Lab Worker:




PPE Training Program includes:

- When and what PPE is necessary
- Don and doffing procedures
- Understanding the limitations of PPE
- Maintenance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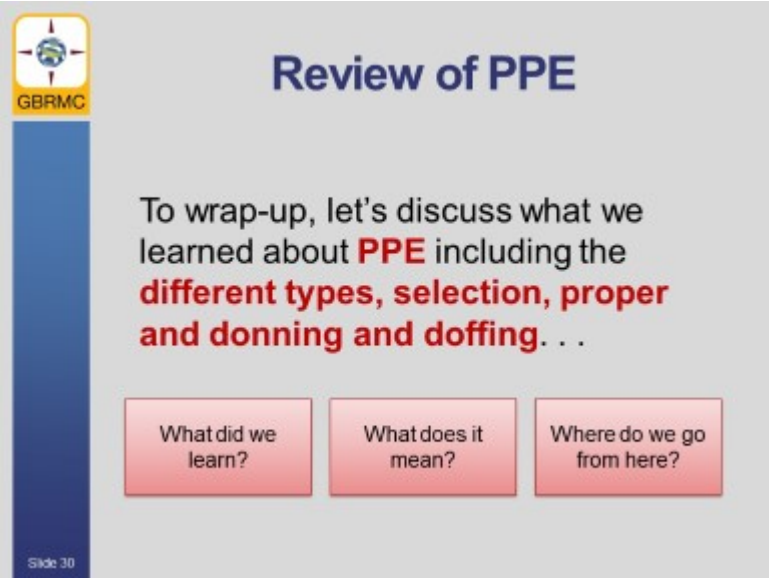
Case Exercise – Step 3
Exercise:
Use the template provided to create a simple written SOP for PPE use for your scenario.
Slide 29

SOP Design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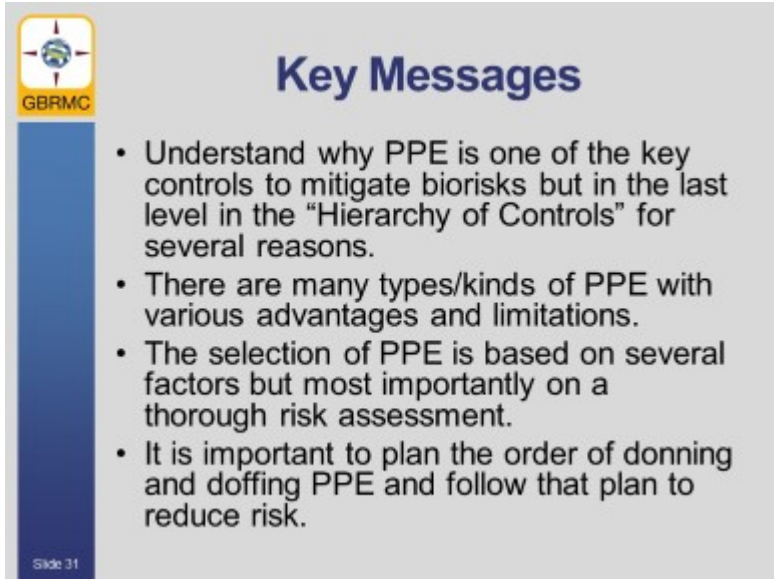
Review of PPE
To wrap-up, let's discuss what we learned about PPE including the different types, selection, proper and donning and doffing. . .
What did we learn?
What does it mean?
Where do we go from here?
Slide 30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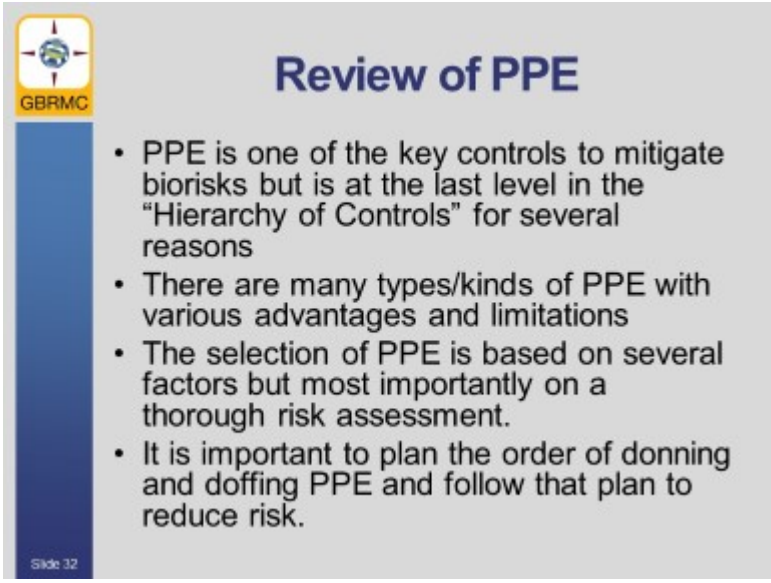
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