Welcome
Environmental Health Shelter

Office of Emergency Preparedness

Office of Environmental Health Services
Welcome and Logistics
Suzi Silverstein, MA, RD
Assistant Director
Office of Emergency Preparedness
Virginia Department of Health
Welcome & Logistics
Opening Remarks
Definitions, Chain of Commands, ICS
Role of EH in a Shelter
Opening Remarks
Objectives
Julie Henderson
Director, Division of Food and General Environmental Services
Virginia Department of Health
Objectives

Participants will be able to describe the EH Specialist role in Shelter Management for:

• conducting general building assessments (Facility)
• ensuring food safety (Food)
• protecting potable water supplies and ensuring safe drinking water/ice (Drinking Water & Ice)
Objectives

Participants will be able to describe the EH Specialist role in Shelter Management for:

• investigating foodborne illness or food related complaints (Health/Medical)
• ensuring approved wastewater disposal (Sanitation)
• ensuring adequate and appropriate solid waste disposal (Solid Waste Generated)
Objectives

Participants will be able to describe the EH Specialist role in Shelter Management for:

• assessing child care facilities if provided by Shelter (Childcare Area)
• evaluating the sleeping area (Sleeping Area)
Definitions and Chain of Commands
State Planning & SNS Coordinator
Office of Emergency Preparedness
Virginia Department of Health
Shelters and Sheltering

Shelter

• It is a short-term, overnight accommodation for individuals threatened or displaced by an emergency or disaster event.
Shelters and Sheltering

Shelter

• At the time this document was drafted, there were no specific state or federal mandates for required services, supplies, or features to be provided within shelters except for the requirements related to accessibility and nondiscrimination.
Shelters and Sheltering

Shelter

• At a minimum, it is recommended that shelters provide registration, food services, water, restrooms, climate control (heat or cooling), and security.
Shelters and Sheltering

Shelter

• Additional services that may be provided in shelters include but are not limited to: health services, reunification, childcare, showers, and laundry.
Shelters and Sheltering

Sheltering

• Action taken by an individual to seek protection or refuge when disaster strikes, or
• Action taken by an agency or organization to provide such refuge
Shelter Types

- Shelter in Place
- Refuge of Last Resort (ROLR)
- General Population Shelter
- Medical Shelter
Shelter-in-place
To harbor in a safe area within the building or structure currently occupied at the time of and during a disaster or emergency event
Refuge of last resort (ROLR)

A type of mass care facility that is not recommended for shelter, offering only protection or refuge from environmental hazards in the event individuals do not or cannot evacuate.
Refuge of last resort (ROLR)

ROLRs do not provide any services or support and are intended to function as a place of refuge from the elements until it is safe to return home or evacuate to another location.
Refuge of last resort (ROLR)

A ROLR is not a shelter and the term “shelter of last resort” will not be used in state-level shelter planning to reduce confusion.
General population shelter

A facility that provides temporary, overnight shelter to all individuals, including those with disabilities or access, functional, and non-critical medical needs
Medical shelter

A facility or a portion of a facility that provides shelter to individuals who require clinical medical care by licensed healthcare professionals.
ICS Overview

Incident Command

- Operations Section
- Planning Section
- Logistics Section
- Finance/Administration Section
ICS Overview
ICS Overview

Incident Commander

- Safety Officer
- Liaison Officer

Information Officer

- Planning Section
  - Units
- Operations Section
  - Branches/Divisions/Groups
- Logistics Section
  - Units
- Finance/Admin Section
  - Units
Role of EH in a Shelter
Food Safety Consultant
Virginia Department of Health
Inter-dependency of EH Areas of Responsibility

- Shelters
- Vectors
- Structures
- Waste
- Water
- Food
# Environmental Health Assessment Form For Shelters

## I. Assessing Agency Data

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Agency / Organization Name</td>
<td></td>
</tr>
<tr>
<td>2. Assessor Name / Title</td>
<td></td>
</tr>
<tr>
<td>3. Phone</td>
<td></td>
</tr>
<tr>
<td>4. Email or Other Contact</td>
<td></td>
</tr>
<tr>
<td>5. Immediate Needs Identified</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>

## II. Facility Type, Name and Census Data

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Shelter Type</td>
<td>Community / Recovery / Special Needs / Other</td>
</tr>
<tr>
<td>6. ARC Facility</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>7. ARC Code</td>
<td></td>
</tr>
<tr>
<td>8. Date Shelter Opened</td>
<td>mm/dd/yr</td>
</tr>
<tr>
<td>9. Date Assessed</td>
<td>mm/dd/yr</td>
</tr>
<tr>
<td>10. Time Assessed</td>
<td>am / pm</td>
</tr>
<tr>
<td>11. Reason for Assessment</td>
<td>Preoperational / Initial / Routine / Other</td>
</tr>
<tr>
<td>12. Location Name and Description</td>
<td></td>
</tr>
<tr>
<td>13. Street Address</td>
<td></td>
</tr>
<tr>
<td>14. City / County</td>
<td></td>
</tr>
<tr>
<td>15. State</td>
<td></td>
</tr>
<tr>
<td>16. Zip Code</td>
<td></td>
</tr>
<tr>
<td>17. Latitude / Longitude</td>
<td></td>
</tr>
<tr>
<td>18. Facility Contact / Title</td>
<td></td>
</tr>
<tr>
<td>19. Facility Type</td>
<td>School / Arena / Convention Center / Other</td>
</tr>
<tr>
<td>20. Phone</td>
<td></td>
</tr>
<tr>
<td>21. Fax</td>
<td></td>
</tr>
<tr>
<td>22. E-mail or Other Contact</td>
<td></td>
</tr>
<tr>
<td>23. Current Census</td>
<td></td>
</tr>
<tr>
<td>24. Estimated Capacity</td>
<td></td>
</tr>
</tbody>
</table>

## III. Facility

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. Number of Residents</td>
<td></td>
</tr>
<tr>
<td>26. Number of Staff / Volunteers</td>
<td></td>
</tr>
</tbody>
</table>

## VII. Solid Waste Generated

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27. Structural Damage</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>28. Security / Law Enforcement Available</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>29. Water System Operational</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>30. Hot Water Available</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>31. HVAC System Operational</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>32. Adequate Number of Collection Receptacles</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>33. Appropriate Separation</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>34. Appropriate Disposal</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>35. Appropriate Storage</td>
<td>Yes / No / Unk / NA</td>
</tr>
<tr>
<td>36. Waste Removal</td>
<td>Yes / No / Unk / NA</td>
</tr>
</tbody>
</table>
## Environmental Health Shelter Assessment Form Instruction Sheet

### I. ASSESSING AGENCY DATA
2. Assessor Name/Title: self-explanatory.
3. Assessor Phone contact: self-explanatory.
4. Email or Other Contact: Note email or describe any other means of communication for assessor (e.g., radio, pager).

### II. FACILITY TYPE, NAME and DATA
5. Shelter Type: "Community/Recovery": general public. “Special Needs” population with specific medical requirements. "Other": relief workers base camp, etc.
6. ARC Facility: Is the shelter managed by the American Red Cross?
7. If #6 is yes, indicate ARC Facility code.
8. Date Shelter Opened: self-explanatory.
11. Reason for Assessment: "Preoperational": before opening. "Initial": first assessment after opening. "Routine": assessments occurring on a regular basis (e.g., daily, weekly). "Other": occurrence such as an outbreak or a complaint.
12. Location Name and Description: Example:

### IV. FOOD
41. Preparation on site: self-explanatory.
42. Served on site: self-explanatory.
43. Safe food sources: self-explanatory.
44. Makeup: self-explanatory.
47. ADR (Alternate Distribution Resources): self-explanatory.
50. Hand-washing supplies available: water, soap, and paper towels; if water is unavailable, hand sanitizers (at least 60% alcohol).
51. Hygiene facilities available: toilet paper, feminine hygiene supplies, and diapers/pads for children and adults.
52. Acceptable level of cleanliness: self-explanatory.
54. MONITORING
60. Handwashing supplies: self-explanatory.
62. Hand-washing supplies available: water, soap, and paper towels; if water is unavailable, hand sanitizers (at least 60% alcohol).
63. Hygiene facilities available: toilet paper, feminine hygiene supplies, and diapers/pads for children and adults.
64. Acceptable level of cleanliness: self-explanatory.
66. SOLID WASTE GENERATED
67. Parent
68. Child
69. Total
70. Hand-washing supplies available: water, soap, and paper towels; if water is unavailable, hand sanitizers (at least 60% alcohol).
71. Hygiene facilities available: toilet paper, feminine hygiene supplies, and diapers/pads for children and adults.
73. Sewage system type: self-explanatory.

### IX. CHILDCARE AREA
71. Hand-washing facilities available: for adults and children with paper towels, soap, and water.

---

**VDH Virginia Department of Health**

To protect the health and promote the well-being of all people in Virginia.
### I. Assessing Agency Data

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Agency/Organization Name</strong></td>
<td></td>
</tr>
<tr>
<td><strong>2. Assessor Name/Title</strong></td>
<td></td>
</tr>
<tr>
<td><strong>3. Phone</strong></td>
<td></td>
</tr>
<tr>
<td><strong>4. Email or Other Contact</strong></td>
<td></td>
</tr>
<tr>
<td><strong>90) Immediate Needs Identified:</strong></td>
<td>Yes</td>
</tr>
</tbody>
</table>
II. Facility Type, Name, and Census Data

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Shelter Type: Community/Recovery, Special Needs, Other, ARC Facility, Yes, No, Unknown/NA, ARC Code</td>
</tr>
<tr>
<td>6</td>
<td>Date Shelter Opened: mm/dd/yy</td>
</tr>
<tr>
<td>7</td>
<td>Date Assessed: mm/dd/yy</td>
</tr>
<tr>
<td>8</td>
<td>Time Assessed: <strong>:</strong> AM/PM</td>
</tr>
<tr>
<td>9</td>
<td>Reason for Assessment: Preoperational, Initial, Routine, Other</td>
</tr>
<tr>
<td>10</td>
<td>Location Name and Description</td>
</tr>
<tr>
<td>11</td>
<td>Street Address</td>
</tr>
<tr>
<td>12</td>
<td>City/County</td>
</tr>
<tr>
<td>13</td>
<td>State</td>
</tr>
<tr>
<td>14</td>
<td>Zip Code</td>
</tr>
<tr>
<td>15</td>
<td>Latitude/Longitude</td>
</tr>
<tr>
<td>16</td>
<td>Facility Contact/Title</td>
</tr>
<tr>
<td>17</td>
<td>Facility Type: School, Arena/Convention Center, Other</td>
</tr>
<tr>
<td>18</td>
<td>Phone</td>
</tr>
<tr>
<td>19</td>
<td>Fax</td>
</tr>
<tr>
<td>20</td>
<td>E-mail or Other Contact</td>
</tr>
<tr>
<td>21</td>
<td>Estimated Capacity</td>
</tr>
<tr>
<td>22</td>
<td>Number of Residents</td>
</tr>
<tr>
<td>23</td>
<td>Number of Staff/Volunteers</td>
</tr>
<tr>
<td>24</td>
<td>Current Census</td>
</tr>
<tr>
<td>25</td>
<td>Estimated Capacity</td>
</tr>
<tr>
<td>26</td>
<td>Number of Residents</td>
</tr>
<tr>
<td>27</td>
<td>Number of Staff/Volunteers</td>
</tr>
</tbody>
</table>
XI. Comments

XI. COMMENTS (List Critical Needs on Immediate Needs Sheet)
<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
III. Shelter Facility
### III. FACILITY

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Structural damage</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>28</td>
<td>Security / law enforcement available</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>29</td>
<td>Water system operational</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>30</td>
<td>Hot water available</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>31</td>
<td>HVAC system operational</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>32</td>
<td>Adequate ventilation</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>33</td>
<td>Adequate space per person</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>34</td>
<td>Free of injury /occupational hazards</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>35</td>
<td>Free of pest / vector issues</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>36</td>
<td>Acceptable level of cleanliness</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>37</td>
<td>Electrical grid system operational</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>38</td>
<td>Generator in use, If yes, Type__________</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>40</td>
<td>Indoor temperature _________ °F</td>
<td></td>
<td></td>
<td>Unk/NA</td>
</tr>
</tbody>
</table>
Knowledge Check

Which of the following areas are EHS responsibilities?

- Food
- Waste Water
- Crowd Management
- Water
- Solid Waste
- Shelter Layout
- Laundry
- Traffic/Parking
- Security
- Mass Vaccination
Knowledge Check

Which of the following areas are EHS responsibilities?

- Food
- Waste Water
- Crowd Management
- Water
- Solid Waste
- Shelter Layout
- Laundry
- Traffic/Parking
- Security
- Mass Vaccination
Questions

eprtraining@vdh.virginia.gov
IV. Shelter Food
IV. Shelter Food

Special considerations are required in mass feeding operations:

• Feed large numbers of responders and the affected public
• Managed by non-governmental organizations
• Prepared in a variety of locations: fixed or permanent
Mass Feeding Operations: Pre-operational Assessment

- 24/7 management contact information
- Type of food operation
- Menu items
- Approved food suppliers
Mass Feeding Operations: Pre-operational Assessment

- Food preparation, service, and disposal
- Food preparation schedule
- Food safety training of management and staff/volunteers
- Safe, approved water source
Mass Feeding Operations: Pre-operational Assessment

- Sewage disposal
- Solid waste disposal
- Vector control and pest management
- Plans for disrupted utilities
- Personal hygiene
IV. Shelter Food-Food Safety Goals:

- To reduce the risk of foodborne illness
- To intervene and ensure that corrective action is taken when food safety may be compromised
- To work with food operator to provide safe, sound, honestly presented food
- To educate the public and volunteers, food safety before, during, and after an emergency or disaster.
Equipment and Methods for Ensuring Food Safety

- Approved food temperature measurement devices (e.g., thermocouple thermometer)
- Approved alcohol swabs
- Sanitizer measurement device
- Temperature strips
Equipment and Methods for Ensuring Food Safety

- Flashlight
- Disposable gloves
- Hand-washing reminder signs
- Inspection forms and educational brochures as per district policy
- Camera
### IV. Shelter Food

<table>
<thead>
<tr>
<th></th>
<th>Preparation on site</th>
<th>Served on site</th>
<th>Safe food source</th>
<th>Adequate supply</th>
<th>Appropriate storage</th>
<th>Appropriate temperatures</th>
<th>Hand-washing facilities available</th>
<th>Safe food handling</th>
<th>Dishwashing facilities available</th>
<th>Clean kitchen area</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>□ Yes</td>
<td>□ No</td>
<td>□ Unk/NA</td>
<td>□ Yes</td>
<td>□ No</td>
<td>□ Unk/NA</td>
<td>□ Yes</td>
<td>□ No</td>
<td>□ Unk/NA</td>
<td>□ Yes</td>
</tr>
</tbody>
</table>
Knowledge Check

True/False. In general, shelters must discard donations of cooked foods from the public and not serve them to shelter residents because the food preparation methods and standards of outside sources are unknown.
Knowledge Check

True/False. In general, shelters must discard donations of cooked foods from the public and not serve them to shelter residents because the food preparation methods and standards of outside sources are unknown.

[Correct Answer]
VI. Shelter Health/Medical

• Respond to food borne illness complaints, reported out breaks, & unusual food related injuries
• Work effectively with Nurses and Epidemiologists
• Perform environmental assessments during FBI outbreaks
Questions

eprtraining@vdh.virginia.gov
Drinking Water
Emergency Preparedness and Security Coordinator
Virginia Department of Health
Office of Drinking Water
### V. Shelter Drinking Water and Ice

<table>
<thead>
<tr>
<th></th>
<th>Adequate water supply</th>
<th>Yes</th>
<th>No</th>
<th>Unk/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>Adequate ice supply</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>52</td>
<td>Safe water source</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
<tr>
<td>53</td>
<td>Safe ice source</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
</tr>
</tbody>
</table>
Types of Drinking Water Advisories

Boil
Do Not Drink
Do Not Use
Types of Drinking Water Advisories

Boil

Boil Water Advisory (BWA) - DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST

- Use boiled or bottled water for drinking, beverage and food preparation, and making ice until further notice.

Do Not Drink

Do Not Use
Types of Drinking Water Advisories

**Boil**

Boil Water Advisory (BWA) - DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST

- Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink.
Types of Drinking Water Advisories

**Boil**

Boil Water Advisory (BWA) - DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST

- Bring all tap water to a rolling boil, let it boil for one (1) minute, and let it cool before using, or use bottled water.

**Do Not Drink**

**Do Not Use**
Types of Drinking Water Advisories

Boil

Do Not Drink

- Do not use the water for drinking, making ice, brushing teeth, washing dishes, or preparing food until further notice.

Do Not Use

DO NOT DRINK THE WATER.
Types of Drinking Water Advisories

**Boil**

**Do Not Drink**

**Do Not Use**

DO NOT USE THE WATER.

- You should not use the water for drinking, making ice, brushing teeth, washing dishes, washing clothes, bathing/showering, food preparation, or toilet flushing.
- Bottled water should be used for all of the above necessities until further notice.
Questions

eprtraining@vdh.virginia.gov
Links for additional information


https://www.cdc.gov/healthywater/emergency/index.html
Shelter Sanitation
### VII. Shelter Sanitation

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
<th>Unk/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate laundry services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate number of toilets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate number of showers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate number of hand-washing stations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand-washing supplies available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet supplies available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptable level of cleanliness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sewage system type</td>
<td>Community</td>
<td>On site</td>
<td>Portable</td>
</tr>
</tbody>
</table>
VII. Shelter Sanitation

What is the primary job as EHS in shelter?

PREVENTION:

- Gastrointestinal diseases
- Respiratory diseases
- Environmental hazards
- Vectors

ADVISOR vs. REGULATOR
VII. Shelter Sanitation

Laundry

• Cross Contamination - Area to store soiled laundry/Area to store clean AND clearly marked
• Gloves!
• 105-120 degrees for 10 minutes wash
• 160 degrees for 30 minutes dry time
• ...or use bleach, or use a contractor for the entire operation
VII. Shelter Sanitation

Toilets:

- 1 per 20 in general (1 per 20 females: 1 toilet/1 urinal for 25-59 males)
- ADA Facilities
- Men’s and Women’s separated
- WELL STOCKED! Consider season, location
What is wrong with this picture?
VII. Shelter Sanitation

Showers:

• 1 bathing facility per 15 people
• Men’s and Women’s
VII. Shelter Sanitation

Hand washing stations:

• 1 per 15 people
• Hot water, if available
• Well stocked with soap, hand towels, and/or sanitizer
• Signs and education materials
VII. Shelter Sanitation

Service Daily

Service Every 3 Days
VII. Shelter Sanitation

- Hyper Cleaning! Not standard facility cleaning, frequent
- Trained cleaning staff! - sharps, spills, biohazard or chemical, spill kits
- Proper disinfectants AND concentrations
- Methods that are appropriate
- Cleaning staff protection – masks, gloves, etc.
VII. Shelter Sanitation

Bodily Fluids Guidance – CDC

- Protective mask, glove, gown, goggles
- Clear the area – no cleaning with people close by if you can help it!
- 1:10 ratio of 5% bleach to water (not hot water)
- Treat and remove organic material (wash and rinse), treat again with disinfectant (sanitize)
- [https://www.cdc.gov/infectioncontrol/guidelines/environmental/background/services.html](https://www.cdc.gov/infectioncontrol/guidelines/environmental/background/services.html)
VII. Shelter Sanitation

General Assessment/Inspection Considerations:

• Rapid vs. comprehensive inspections
• Length of operation or scope of event
• Type of operation and disaster
• Timing: meal prep, maintenance and cleaning, crowds, etc.

All affects what you need to focus on and how to spend time
VII. Shelter Sanitation

General Assessment/Inspection Considerations:

• Try to correct things while you are there
• Discuss results with manager and get signature – you may need to see multiple managers (shift/areas of management)
• Consider options, fixes, procedural changes, improvisation (like coolers for handwashing), critical control points, EDUCATION and STAFF TRAINING – USE YOUR SKILLS!
VII. Shelter Sanitation

Provide educational resources, signs, etc.
Knowledge Check

What is the #1 most effective way to prevent the spread of disease in a shelter?

Handwashing
Knowledge Check

True/False. The number of brick and mortar fixtures in the shelter determine the number of people that it can serve?
Knowledge Check

True/False. To clean up bodily fluids, add one cup of bleach to 1 gallon of hot water and mop up the fluids.
Questions

eprtraining@vdh.virginia.gov
VIII. Shelter Solid Waste Generated
### VIII. SOLID WASTE GENERATED

<table>
<thead>
<tr>
<th></th>
<th>Adequate number of collection receptacles</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriate separation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriate disposal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriate storage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Timely removal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>Yes</td>
<td>No</td>
<td>Unk/NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>Solid</td>
<td>Hazardous</td>
<td>Medical</td>
<td>Unk/NA</td>
</tr>
</tbody>
</table>
Knowledge Check

Which of the following are key critical components of shelter assessment tools?

✓ a. Food Service
✓ b. Sanitary Facilities
✓ c. Housekeeping
✓ d. Laundry Facilities
✓ e. Drinking Water Safety
Knowledge Check

A shelter is developed to accommodate 1000 residents. What are the bathroom/handwashing/shower/laundry requirements?
Knowledge Check

A shelter is developed to accommodate 1000 residents. What are the bathroom/handwashing/shower/laundry requirements?

50  67  67
<table>
<thead>
<tr>
<th>IX. Childcare Area (If Provided by the Shelter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean diaper-changing facilities</td>
</tr>
<tr>
<td>Hand-washing facilities available</td>
</tr>
<tr>
<td>Adequate toy hygiene</td>
</tr>
<tr>
<td>Safe toys</td>
</tr>
<tr>
<td>Clean food/bottle preparation area</td>
</tr>
<tr>
<td>Adequate child/caregiver ratio</td>
</tr>
<tr>
<td>Acceptable level of cleanliness</td>
</tr>
</tbody>
</table>

- 70 Clean diaper-changing facilities
- 71 Hand-washing facilities available
- 72 Adequate toy hygiene
- 73 Safe toys
- 74 Clean food/bottle preparation area
- 75 Adequate child/caregiver ratio
- 76 Acceptable level of cleanliness

Next Slide
IX. Shelter Childcare Area

Adequate child/caregiver supervisor ratio (75):

- Birth-12 months (3:1)
- 13-30 months (4:1)
- 31-35 months (5:1)

- 3 years (7:1)
- 4-5 years (8:1)
- 6-8 years (10:1)
- 9-12 years (12:1)
X. Shelter Sleeping Area
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Yes</th>
<th>No</th>
<th>Unk/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>77</td>
<td>Adequate number of cots/beds/mats</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>Adequate supply of bedding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>Bedding changed regularly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>Adequate spacing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>Acceptable level of cleanliness</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Questions

eprtraining@vdh.virginia.gov
Training Courses

• **Environmental Health and Shelters**, CDC/Tulane University, TRAIN ID# 1009207

• **Environmental Health Training in Emergency Response (EHTER) Operations course**, CDC, hosted by the Federal Emergency Management Agency’s (FEMA) Center for Domestic Preparedness (CDP)
Contact Information

Suzi Silverstein
Office of Emergency Preparedness
Virginia Department of Health
109 Governor St, Room 1328
Richmond, VA 23219
suzi.silverstein@vdh.virginia.gov
(804)864-7538
cell (804)840-6658

Julie Henderson
Director, Division of Food and General Environmental Services
Virginia Department of Health
109 Governor St., 5th Floor
Richmond, VA 23219
804-864-7455
www.vdh.virginia.gov
Contact Information

Scott M. Vogel
Environmental Health Coordinator
Private Well Program
Office of Environmental Health Services
Virginia Department of Health
109 Governor St., 5th Floor
Richmond, Virginia 23219
Office (804) 864-7462
scottm.vogel@vdh.virginia.gov
VDH Resources

Office of Emergency Preparedness
http://vdhweb.vdh.virginia.gov/emergency-preparedness/

Directory

OEP Leadership Distribution list
dutyofficer@vdh.virginia.gov

Office of Environmental Health
http://vdhweb.vdh.virginia.gov/environmental-health-services/
Thank You