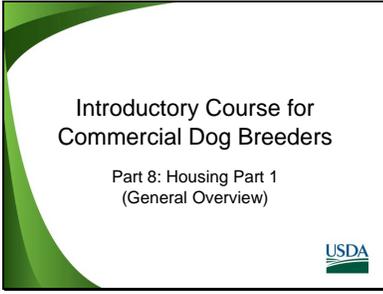


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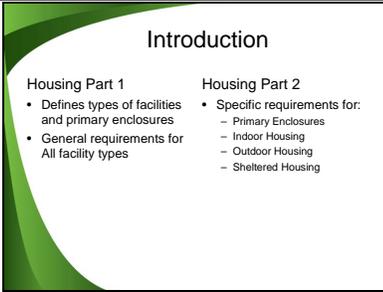


Introductory Course for
Commercial Dog Breeders

Part 8: Housing Part 1
(General Overview)



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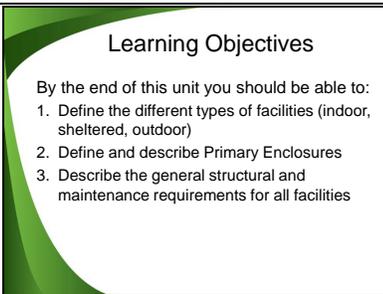


Introduction

- Housing Part 1
 - Defines types of facilities and primary enclosures
 - General requirements for All facility types
- Housing Part 2
 - Specific requirements for:
 - Primary Enclosures
 - Indoor Housing
 - Outdoor Housing
 - Sheltered Housing

The housing provided to dogs at commercial facilities is important to their overall health and well-being. The Animal Welfare Act (AWA) standards and regulations provide detailed information on housing standards for licensed facilities. It is important to understand the regulations and make sure your facilities meet the standards established by the regulations. This course divides the topic of housing into two parts. Part One provides a general description of the types of facilities and the general structural, maintenance and other requirements applicable to all types of facilities. Part Two describes specific requirements for primary enclosures and each type of housing facility. Be sure to refer to the regulations or ask your Inspector if you have any questions about housing.

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Learning Objectives

By the end of this unit you should be able to:

1. Define the different types of facilities (indoor, sheltered, outdoor)
2. Define and describe Primary Enclosures
3. Describe the general structural and maintenance requirements for all facilities

By the end of this presentation, you should be able to:

1. Define the different types of facilities (indoor, sheltered, outdoor)
2. Define and describe Primary Enclosures
3. Describe the general structural and maintenance requirements for all facilities

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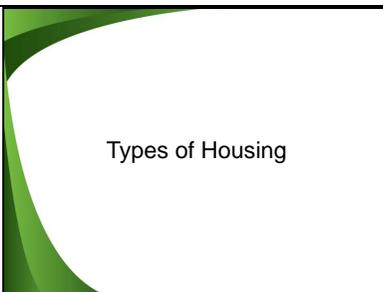
Video Introduction

Before we go through this presentation, please view this short video about Housing for dogs:

<https://www.youtube.com/watch?v=WbAFRmDWUqU>

This video shows facilities that meet and in many cases exceed the AWA Standards and Regulations. Your Animal Care Inspector can provide information on how to make your facility meet standards, and when going above the standards can be good for your business.

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Types of Housing

This section will introduce you to the types of housing you can use.

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Types of Housing

The following types of housing are commonly used in kennels:

- Indoor facilities
- Sheltered facilities
- Outdoor facilities
- Primary enclosures

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Indoor Housing Facility

A building intended to house animals which has environmental controls and meets certain criteria:

- Has environmental controls to regulate
 - Temperature
 - Humidity
 - Odors
- Is an enclosed space with continuously connected roof, walls and floor
- Has at least one door for entry and exit that can be opened and shut
- Windows covered by transparent glass or hard plastic

An Indoor Housing Facility is:
A building intended to house animals which has environmental controls and meets these criteria:

- Environmental controls to regulate:**
- Temperature (within the limits set forth for that species of animal)
 - Humidity (maintain at 30 to 70 percent)
 - Odors (must be rapidly eliminated)

- Is an enclosed space:**
- The roof, walls and floor are continuously connected (a shed or barn set on top of the ground does not have a continuous connection between the walls and the ground unless a foundation and floor are provided)
 - Building has at least one door for entry and exit that can be opened and shut
 - Windows or openings which provide natural light must be covered by transparent material such as glass or hard plastic

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Indoor Housing: Example



- This indoor housing area has**
- glass-covered windows
 - contiguous ceiling, walls and floors
 - an opening and closing entry door
 - temperature, humidity and air-quality controls

Photo: A. Eaglin: USDA:APHIS

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Indoor Housing: Example



- This is another example of indoor housing with**
- glass-covered windows
 - contiguous ceiling, walls and floors
 - an opening and closing entry door
 - temperature, humidity and air-quality controls

Photo: A. Eaglin: USDA:APHIS

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Sheltered Housing Facility

Provides at all times:

- Shelter
- Protection from the elements
- Protection from temperature extremes

May consist of:

- Runs or pens totally enclosed within a building
- Runs or pens which have connected indoor-outdoor areas, where the inside portions are inside of a totally enclosed building

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Sheltered Housing: Example



This sheltered housing facility consists of both an indoor enclosed area, and an outdoor enclosed area with an extended roof for shade and protection from rain. The dogs may come and go from the indoor housing at any time via the dog doors with heavy plastic flexible flaps.

Photo: A.Eaglin: USDA:APHIS

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Sheltered Housing: Example



In this photo, the dog is in the indoor portion of a sheltered housing facility. Note the heavy plexiglass door providing access to the outdoor portion of the facility.

Photo: A. Eaglin: USDA:APHIS

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Sheltered Housing: Example



These photos show a dog in both the outdoor and indoor portion of a sheltered housing facility. They can go inside or outside as they wish. Note the heavy plexiglass door providing access between the two portions.

Photos: Dani Ausen ISU

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Outdoor Housing Facility

Any structure, building, land or premises which houses animals or is intended to house animals which:

- Does not meet the definition of any other type of housing as provided in the regulations AND
- In which the temperature cannot be controlled within set limits
- You must provide dogs with shelter from the elements at all times

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Outdoor Housing: Example



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Outdoor housing: Example



This outdoor housing area includes shelter from sun and rain for both the dogs and food and water, with space for exercise and adequate protective fencing

Photo: D. Ausen ISU

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Primary Enclosures

This section describes what primary enclosures are.

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Definition

- Any structure or device which:
- Restricts an animal to a limited amount of space
 - Examples:
 - Room
 - Pen
 - Run
 - Cage
 - Compartment
 - Hutch

A wide range of structures can be classified as a primary enclosure. Primary enclosures may often be inside a housing facility.

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Primary enclosure: Example



This dam and her pups are housed in a cage (primary enclosure) within an indoor housing facility.

Photo: A. Eaglin: USDA: APHIS

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Primary enclosure: Example



This is a primary enclosure for a dog in an outdoor housing facility.

Photo: A. Eaglin: USDA: APHIS

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Primary enclosure: Example



This adult dog is in a primary enclosure in a sheltered facility

Photo: D. Ausen ISU

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Primary enclosure: Example



This is a primary enclosure for a group of weaned dogs within an indoor housing facility.

Photo: A. Eaglin: USDA: APHIS

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General Requirements:
All Facilities

Next we will go through the general requirements of all facilities.

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Basic Requirements

- Housing for dogs must:
- Be structurally sound
 - Be kept in good repair
 - Protect animals from injury
 - Contain animals securely
 - Restrict other animals from entering

Next we will discuss the housing site, and conditions it should be kept in.

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Housing Site and Conditions

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Housing Facility Site

- Physically separate from other businesses:
 - Enough separation so that animals the size of dogs, skunks, and raccoons are prevented from entering the housing facility
- Free from accumulations of:
 - Trash
 - Waste material
- Control:
 - weeds/grasses/bushes around buildings to allow for cleaning and pest control



It is recommended that a 3-foot wide perimeter be maintained around all buildings with grass cut short and kept weed-free to eliminate hiding places for mice, rats and other pests.

Reference: 6 CFR 3.1(b) (Physical separation of businesses)

Photo: A. Ramirez: Iowa State University

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Housing Conditions

Animal housing areas and areas used to store animal food or bedding must be:

- Free of accumulations of:
 - Trash
 - Waste material
 - Junk
 - Weeds
 - Other discarded material
- Animal areas within housing facilities must also be free of:
 - Clutter and equipment that is not in use

Supplies and equipment which are actually **in use** for cleaning or husbandry practices may be stored in animal areas within housing facilities.

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Surfaces in Housing Facilities

This section will describe the different surfaces in housing facilities, and their maintenance.

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General Considerations

Surfaces in housing facilities include:

- Housing
- Dens
- Furniture-type fixtures (e.g. ramps, platforms)



Photo: USDA:APHIS

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Construction Considerations

Surfaces must be:

- Constructed in a manner conducive to cleaning and sanitizing
- Made of materials which can be cleaned and sanitized
- If surfaces cannot be cleaned and sanitized, they must be removed and replaced when they become soiled

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Surfaces with Animal Contact

Interior surfaces and surfaces which come into contact with animals must be:

- Free of excessive rust
- Free of jagged edges or sharp points that may injure animals

Excessive rust can prevent cleaning and sanitation, affect structural strength of the surface, or injure animals. Surfaces with rust or sharp/jagged edges must be repaired or replaced.

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Maintaining Surfaces

- Regular maintenance of surfaces ensures that surfaces can be effectively cleaned and sanitized
 - Maintenance may include filling holes or smoothing sharp or jagged edges
- Surfaces (including furnishings) which cannot be readily cleaned and sanitized must be replaced when worn or soiled

Different materials have different maintenance requirements. For example, not all types of disinfectants are compatible with all types of surface materials. Be sure to read disinfectant chemical labels carefully in order to (1) choose the most appropriate disinfectant for the surface, (2) dilute the disinfectant properly, and (3) use the disinfectant properly.

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Readily Cleaned and Sanitized

Materials which are easy to clean and sanitize include:

- Stainless steel
- Fiberglass
- PVC

Remember: even good materials may become difficult to clean and sanitize when damaged, rusty, or broken

The materials on this list are examples of materials that are not easily cleaned and disinfected, and therefore, must be removed and replaced when they become soiled.

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Removable and Replaceable Materials

Materials which can be removed and replaced when they become worn or soiled include:

- Compacted earth/dirt
- Sand
- Gravel
- Grass
- Ceiling tiles
- Absorbent bedding

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Cleaning and Sanitization: Overview

This next section provides a brief overview of cleaning and sanitization requirements.

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Definitions

Cleaning

- Removes visible waste and dirt
 - Physical removal (scooping up) of fecal material is better than hosing it away
 - Prevents distribution of microscopic particles of feces in the air
 - Helps prevent transmission of fecal-borne germs
- Visible waste and dirt may inactivate disinfectants. Remove as much as possible before disinfecting.

Cleansing of animal housing areas consists of two parts: (1) cleaning, and (2) sanitizing

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Definitions

Sanitization

- Makes surfaces physically clean
 - Helps remove dirt and germs that you can't see
- Removes and destroys germs which may make animals ill:
 - Bacteria
 - Viruses
 - Fungi
 - Protozoa
 - Worms

Sanitization is a process using chemicals or other means to make surfaces physically clean. It helps remove dirt and germs which are not visible to the unaided eye.

This process is used to remove and destroy germs which may make animals ill including bacteria, viruses, fungi, protozoa and worms. No cleaning and disinfecting process can remove 100% of germs or infectious agents. It is important to carefully follow directions and procedures for the method you use in order to achieve the highest level of effectiveness.

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Cleaning: Type of Surface

Consider the type of surface when cleaning:

- Hard surfaces
 - Kennels
 - Food and water bowls/receptacles
- Removable surfaces
 - Sand
 - Gravel
 - Dirt
 - Grass
 - Absorbent bedding
- Other surfaces

Different types of surfaces may require different cleaning techniques. It is important to know what kind of surface you are cleaning and adjust your cleaning method accordingly.

Different cleaning methods need to be used for hard surfaces and removable surfaces.

Hard surfaces include: kennels, food and water bowls or receptacles.

Removable surfaces include: sand, gravel, dirt, grass and absorbent bedding.

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Cleaning Hard Surfaces

Hard surfaces that dogs come in contact with daily:

- Clean daily
 - Remove excreta/food waste
 - Spot cleaning (cleaning soiled areas only)
 - Cleaning entire primary enclosure
- Clean in a manner which does NOT:
 - Stress/harm the animal
 - Wet or contaminate the animal

Hard surfaces that dogs come into contact with must be cleaned daily. Daily cleaning prevents contamination of the animal, minimizes disease hazards and reduces odors.

Daily cleaning includes removing excreta and food waste. Spot cleaning of only the soiled areas is permitted. Hard surfaces must be sanitized at least once every two weeks, or more often if necessary to prevent accumulation of dirt, debris, food waste, excreta or other disease hazards.

Cleaning must be done in a manner which does not stress or harm the animal or get the animal wet or contaminated.

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Cleaning: Removable Surfaces

Removable surfaces such as gravel, grass or compacted dirt must be:

- Spot-cleaned (scooped) or raked as often as needed to prevent animals from coming into contact with waste material (feces and urine)
- Materials must be removed and replaced when spot-cleaning or raking is no longer sufficient to prevent:
 - Odors
 - Vermin or insect infestations
 - Disease
 - Animals coming into contact with waste



Surfaces which cannot be sanitized - removable surfaces – need to be spot cleaned or raked as often as needed to prevent animals from coming into contact with waste material.

When spot-cleaning or raking are no longer sufficient to prevent odors, vermin or insect infestations or animals coming into contact with waste, the material must be removed and replaced.

Photo: A. Eaglin: USDA:APHIS

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Cleaning Other Surfaces

Clean and sanitize other surfaces often enough to meet generally accepted husbandry practices and standards.

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Sanitization: When

Surfaces which must be sanitized at least once every two weeks (or more often if needed):

- Food and water containers
- Primary enclosures
- Hard surfaces which the dogs may come into contact
 - Shelters, resting platforms, etc.

Some surfaces must be sanitized at least once every two weeks or more often if needed to prevent the accumulation of waste and other materials. Food and water containers, primary enclosures and any hard surface with which the animals may come into contact, for example, shelters, resting platforms, etc. need to be sanitized at least once every two weeks.

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Sanitization: When

- Hard surfaces: at least every 2 weeks
- Maybe more frequently to prevent build up of waste materials and dirt
- Sanitize:
 - AFTER cleaning and removing as much visible waste material and dirt as possible

Some disinfectants can become inactivated in the presence of organic material such as fecal material or dirt. Removing as much of this material as possible prior to disinfecting a surface will help to ensure maximal disinfectant potency.

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Sanitization Methods

Use one of the following methods:

- Live steam under pressure
- Washing with hot water (at least 180 ° F) and a soap or detergent
- Washing all soiled surfaces with a detergent and disinfectant
- NOTE: Follow all product labels exactly

Detergent and disinfectants can be either separate products, or combined products (e.g. sold as a product with dual cleaning and disinfecting properties). **DO NOT** mix detergents and/or disinfectants together on your own unless guided by product labeling; doing so may produce toxic gases or liquids which may harm human or animal health!

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Sanitization: How

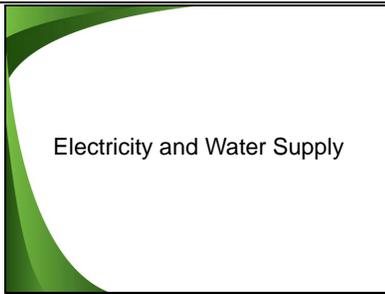
- Thoroughly clean before sanitizing to remove organic material and mineral build up
- Use clean water to rinse away all detergent and disinfectant
- Thoroughly dry the surface prior to reintroducing the dog to the surface
- Sanitize removable surfaces by replacing the material

Thoroughly clean by removing organic material and mineral build up prior to sanitizing. Organic material (feces) may inactivate disinfectants, so it is important to remove as much as possible before sanitizing.

Follow label instructions on detergents and disinfectants. Pay attention to “contact times” for disinfectants. This is the amount of time the chemical needs to work effectively on the surface being disinfected. Use clean water to rinse away all detergent and disinfectant. Thoroughly dry the surface (squeegee) prior to reintroducing the animal to the surface.

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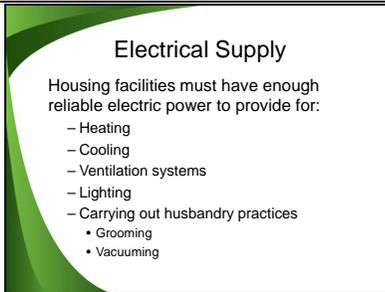
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It is important to have electricity and water supplied to your facility, explained in this next section.

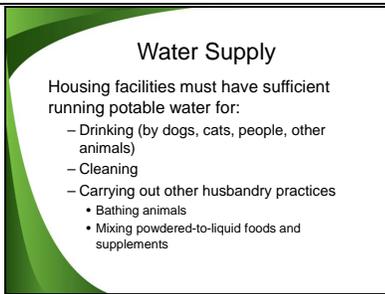
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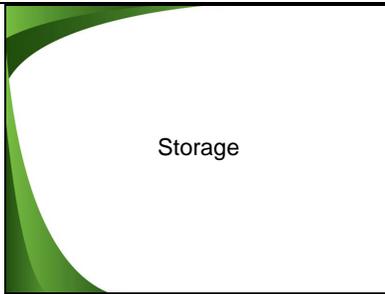
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This section will discuss storage, which is also an important part of running a compliant facility.

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Materials such as food, bedding and cleaning supplies used at the facility must be stored in accordance with the regulations.

Photo: A. Eaglin: USDA:APHIS

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Food and Bedding

Store food and bedding supplies in a manner which prevents:

- Spoilage
- Loss of food's nutritive value
- Contamination
 - Vermin, insects, chemical spills, animal waste, wetting by water, accumulation of dirt
- Vermin infestation of building
 - Rodents
 - Insects

Food and bedding need special storage considerations.

Food must be stored in a manner which prevents spoilage. Food that is improperly stored can lose its nutritional value.

Food and bedding can become contaminated by vermin, insects, chemicals and animal waste. Make sure your storage area is free from these hazards.

Water and the accumulation of dirt can also contaminate or damage food and bedding. Regularly observe and clean storage areas.

Food and bedding are attractive to rodents and insects. Improperly stored food and bedding may lead to insects and rodents infesting your facility.

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Unopened Supplies

- Store unopened food and bedding :
 - Up off the floor
 - Pallets or shelves
 - Away from walls
- Allows for cleaning beneath and behind supplies
- Aids in frequent inspection of favorite hiding places for rodents and insects
- Raising supplies off the floor helps prevent wetting of supplies during cleaning

The spaces behind or beneath stacks of supplies are attractive to rodents and insects. Keeping supplies raised off the floor makes it easier to inspect for signs of pests and to keep areas around supplies clean.

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The supplies in this image are stored up off the floor on pallets. The pallets are pulled away from the walls.

Photo: A. Eaglin: USDA:APHIS

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Open Supplies

- Open Supplies
 - Store open food containers and bedding in:
- Leakproof containers with tightly fitting lids
 - Prevents contamination and spoilage
 - Only food and bedding currently being used may be stored in animal housing areas
- Avoid stacking excess supplies in animal housing areas

To ensure the quality of the food and bedding, excess supplies should not be stored in animal housing areas.

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In this image, both unopened bags of food, as well as tightly-lidded, leakproof plastic containers of food are stored up on pallets, away from the walls.

Photo: USDA:APHIS

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This is an example of a wall-mounted, leakproof, tightly lidded container that stores food in the appropriate manner.

Photo: USDA:APHIS

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- Medications, vaccines, and food requiring refrigeration (e.g., open cans of wet food) must be properly stored to:
 - Prevent spoilage
 - Protect nutritive value
 - Prevent contamination
 - Protect biological properties of medications and vaccines

Some foods, medications and vaccines require refrigeration. To determine which foods, medications, and vaccines require refrigeration, read the label and consult with your attending veterinarian.

Refrigeration of open cans of wet food is important to prevent spoilage, prevent contamination and to protect the food's nutritive value.

Refrigeration of medications and vaccines is important to protect their biological properties. Improperly stored medications and vaccines can lose their effectiveness.

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- Some supplies used at facility may be toxic to dogs:
 - Cleaning supplies/chemicals
 - Pesticides, insecticides, rodenticides
- Storage requirements:
 - NOT stored in food preparation or storage areas
 - May store in cabinets in animal areas if regularly used
 - No animal access to cabinets
 - No leakage into animal areas

Some supplies used at a facility may be toxic to dogs and cats. These include cleaning supplies and other chemicals, and pesticides or rodenticides (rat poison).

These items may not be stored in areas where food is prepared or stored.

Toxic substances required for normal husbandry may not be stored in areas where food is stored or prepared. These items may be stored in cabinets in animal areas. Make sure that animals cannot access the contents of cabinets where toxic substances are stored. Ensure that the contents will not leak into animal areas.

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The jugs of cleaners and disinfectants in this image are stored in a cabinet which is not located in a food storage or preparation area. The metal bowl in the cabinet is used for mixing small amounts of disinfectant; and is not used for feeding or watering animals.

Photo: Dani Ausen: ISU

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This next section will explain proper drainage and waste disposal for your facility.

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Waste Disposal

Regular and frequent collection, removal and disposal:

- Animal and food wastes
- Bedding
- Debris
- Garbage
- Water/fluid wastes
- Dead animals

In a manner that minimizes the risk of contamination and disease transmission

The regulations require that housing facility operators have a way to regularly and frequently collect, remove and dispose of waste including those listed on the slide.

This must be done in a way that minimizes the risk of contamination and disease transmission.

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Trash Containers

In animal housing areas, food storage areas and food preparation areas trash containers must:

- Have tightly fitting lids on them at all times
- Be leakproof

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Drainage and Disposal System

Housing facilities must have drainage and disposal systems which:

- Rapidly eliminate animal waste and water so animals stay dry
- Minimize vermin and insect infestation
- Minimize odors and disease hazards

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Drainage and Disposal: Construction

- All drains must be properly constructed, installed and maintained
- Closed drainage systems must be equipped with traps which prevent:
 - Backflow of gases into facility
 - Backup of sewage

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Construction

- If facility uses sump or settlement ponds (or something similar) for animal waste disposal and drainage
 - The system must be located far enough away from the housing facility to prevent odors, diseases, and vermin infestation

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Drainage from Animal Areas

Puddles of standing water in animal enclosures must be drained or mopped up so that animals remain dry

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Storage Areas for Wastes

DO NOT store dead animals, animal parts (including afterbirth), and animal waste in the following areas:

- Animal areas
- Food preparation areas
- Food storage areas
- Food freezers (for animal or human food)
- Food refrigerators (for animal or human food)

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Washing Facilities

This section will cover the washing facilities that must be provided.

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Washrooms and Sinks

Washing facilities such as:

- Washrooms
- Sinks
- Showers

must be provided for animal caretakers and be readily accessible



Facilities must have readily accessible washing facilities for animal caretakers. Facilities may include washrooms, sinks, showers. Contact your State Department of Labor or Workforce Development with questions regarding workplace conditions or employment regulations.

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Conclusion

You should now be able to:

1. Define the different types of facilities (indoor, sheltered, outdoor)
2. Define and describe Primary Enclosures
3. Describe the general structural and maintenance requirements that apply to all types of facilities

You should now be able to:

1. Define the different types of facilities (indoor, sheltered, outdoor)
2. Define and describe Primary Enclosures
3. Describe the general structural and maintenance requirements that apply to all types of facilities

This presentation introduced you to the different types of housing facilities and primary enclosures and described some of the general structural and maintenance requirements that apply to all types of facilities. The next part of the housing presentation will provide a more in depth discussion of requirements for primary enclosures and the specific requirements for each type of housing facility.

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Questions?

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Acknowledgments

This presentation was prepared by the Center for Food Security and Public Health, Iowa State University through a cooperative agreement with USDA APHIS Animal Care.

