
Unit 4: Facilities Services

STUDENT GUIDE

Objectives

By the end of this unit, students will be able to:

- Provide and maintain the required facilities-related incident services
- Identify the services provided and maintained
- Describe the requirements for the services provided

Methodology

This unit uses lecture, discussion, and an exercise.

Knowledge of unit content will be evaluated through practical exercises and the administration of the Course Final upon completion of the course.

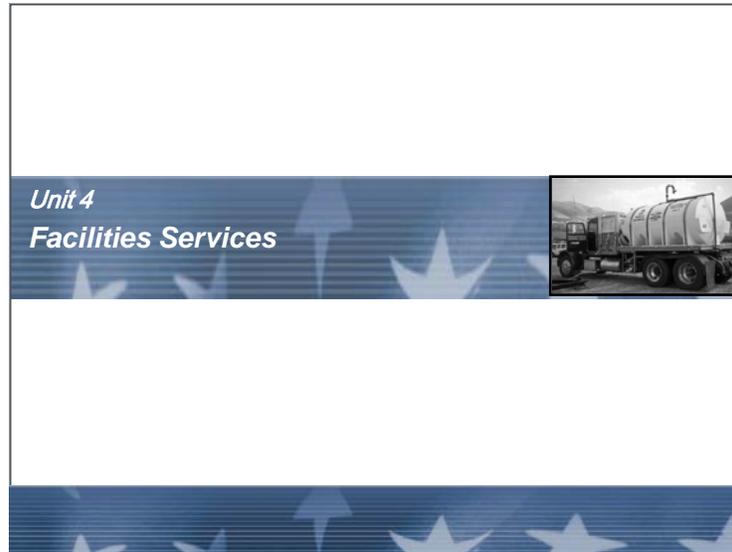
The purpose of this unit's exercise is to provide the students with the opportunity to identify the services that must be provided by the Facilities Unit Leader given the current incident situation.

Time Plan

A suggested time plan for this unit is shown below. More or less time may be required based on the experience level of the group.

Topic	Time
Lesson	1 hour 30 minutes
Exercise	1 hour
Total Time	2 hours 30 minutes

TopicFacilities Services

**Key Points**

Scope Statement

Through this unit, students will gain an understanding of the services provided by the Facilities Unit Leader, as well as the general requirements and rules of thumb for each type of service.

Unit Terminal Objective

Provide and maintain required facilities-related incident services.

**Key Points**

Unit Terminal Objective

Provide and maintain the required facilities-related incident services.

Unit Enabling Objectives

- Identify the services provided and maintained
- Describe the requirements for the services provided

Topic Facilities Services**Facilities Services**

- This unit will explain all the services the FACL might have to provide at an incident
- In the following unit, we will discuss the infrastructure needed to support these services and incident needs



Unit 4:
Facilities Services

Visual 4-3

Key Points

This unit will identify the services that the Facilities Unit Leader might provide, as well as provide rules of thumb. The following unit will explore the infrastructure needed to support varying levels of incident size, complexity, and service levels.

In this unit, we will discuss facilities services in detail, including:

- Utilities
 - Power
 - Potable water
 - Fuel
- Sanitary Services
 - Portable toilets
 - Trash removal
 - Grey and black water removal
 - Hand-washing stations
 - Showers
- Laundry services
- Security
- Facilities Maintenance
 - Dust abatement
 - Cold drink containers
 - Facilities repairs and improvements
 - Cleaning services
 - Vector control
 - Secure storage

Utilities

- **Power**
 - May be hard line or generator
 - Install electrical system according to applicable codes
 - Provide lighting for work and safety while not interfering with sleep
 - See Handout 4-1



Unit 4:
Facilities Services

Visual 4-4

Key Points

The rules of thumb provided throughout this unit are very general. They are only a starting point. The Facilities Unit Leader will need to tailor these basic points to the specific needs of each incident and jurisdiction.

Even though the incident is an emergency, power must be installed according to local electrical codes. If possible, have your electrical installations inspected by a licensed electrician once they are established to ensure safety and limit your liability as the Facilities Unit Leader. The electrical system may not be at code from the first minute of use, but you need to quickly work toward that goal. Always anticipate possible safety issues.

Consider the extra tasks and equipment associated with all of your power equipment, including cords, fuel, or grounding. Make sure that the voltages match up between plugs and sockets.

Different areas will have different lighting needs. Showers and eating areas will also need full lighting. One option for lighting sleeping areas without interfering with sleep quality is to use glow sticks. They can be used to identify hazards or walking paths. Also consider the lighting needed in the Ground Support Unit areas. Local transportation agencies may have light towers that you can use. The main priority is to create a safe environment.

Utilities (cont.)

- Potable Water

- 2 gallons per person per day for drinking
- 5 gallons per person per day for both hygiene and drinking
- See Handout 4-2



Unit 4:
Facilities Services

Visual 4-5

Key Points

The Facilities Unit Leader should consider possible sources of potable water in the local jurisdiction. For example, find out if local fire hydrants contain potable water. Also determine the local requirements for potable water tenders as these may vary by jurisdiction. You must be able to verify that both the source and the transportation meet the requirements for potable water.

Water should be stored in containers that are authorized for potable water. Water testing should be done through the local health authority. Obtain all potable water from a safe source and never accept questionable loads of water. Consider using commercial bottled water.

Topic Utilities (cont.)**Utilities (cont.)**

- Fuel
 - Coordinate for Ground Support to bring in fuel
 - May include propane or Liquid Petroleum Gas (LPG) for heaters



Unit 4:
Facilities Services

Visual 4-6

Key Points

If you have fuel-powered equipment such as propane heaters, make sure that they are properly secured and ventilated. This can be a major health and safety hazard.

Topic Sanitary Services

Sanitary Services

- Portable toilets
- Trash removal
- Grey water removal
- Black water removal
- Hand-washing stations
- Showers
- Laundry services



Unit 4:
Facilities Services

Visual 4-7

Key Points

The rules of thumb provided throughout this unit are very general. They are only a starting point. The Facilities Unit Leader will need to tailor these basic points to the specific needs of each incident and jurisdiction.

Coordinate with the Food Unit and the Medical Unit to determine any specific service needs.

Topic Sanitary Services (cont.)**Sanitary Services (cont.)**

- **Portable toilets**
 - **1 toilet per 10 people – serviced once a day**
 - **1 toilet per 20 people – serviced twice a day**
 - **1 in 25 must be handicapped accessible**



Unit 4:
Facilities Services

Visual 4-8

Key Points

Even if the Facilities Unit Leader is using a fixed facility for the Incident Command Post, base, or camp, portable toilets may still be preferable to using the restrooms at the fixed facilities. Servicing comes included with the portable toilet contract. With a large number of responders and fixed-facility restrooms, there is the added concern about repairs and clean-up after the incident.

If you have multiple areas to support, you will probably have more toilets than suggested in this ratio. If it is an option, identify women-only toilets. This is generally not a requirement, but it is something to consider based on the incident.

The portable toilets should be located near where the people are, including a short distance away from where they eat, sleep, wash, and work. Portable toilets should be located within 50 to 100 feet of sleeping areas. But avoid pumping portable toilets during mealtimes.

These requirements or rules of thumb for portable toilets are an initial consideration to get the Facilities Unit Leader started. As the incident organization expands, he or she may need to order more.

Note that if animals are part of search and rescue efforts or other incident mitigation operations, there should be designated areas for animal relief.

Topic Sanitary Services (cont.)

Sanitary Services (cont.)

- **Trash removal**
 - **Small trash area (toilets) – 35-gallon can per 15 people**
 - **Medium trash area (shower units) – 3-yard dumpster**
 - **Large trash area (e.g., Supply, Food, Ground Support Units) – 40-yard dumpster**

Unit 4:
Facilities ServicesVisual 4-9

Key Points

The Facilities Unit Leader should ensure that all waste disposal containers are clearly marked. He or she should arrange with the contractor for the dumpsters and other trash containers to be emptied once or twice a day, depending on availability. The Facilities Unit Leader is also responsible for providing appropriate disposal of medical waste.

Determine the host agency's policy on recycling and identify the type of organization that is needed to accommodate the recycling effort.

Topic Sanitary Services (cont.)**Sanitary Services (cont.)**

- **Grey and black water**
 - **Dispose according to applicable codes**
 - **Do not mix with potable water**
 - **Provide storage and disposal for at least as much volume as potable water provided**



Unit 4:
Facilities Services

Visual 4-10

Key Points

Grey water is water that was used in the shower or kitchen. Black water is sewage.

Clearly mark all waste water disposal containers.

Black water removal should be part of your contract for the portable toilets; disposal should be according to code. If you are using a shower contractor, they will typically have grey water storage and disposal methods. Ensure that all of these issues are covered in your contracts with the vendors.

Topic Sanitary Services (cont.)**Sanitary Services (cont.)**

- Hand-washing stations
 - Located with toilets
 - 1 sink per 20 people
 - If no sinks are available, provide hand sanitizer or baby wipes



Unit 4:
Facilities Services

Visual 4-11

Key Points

The photo on the left is a portable hand-washing station, which is often supplied by the same vendor as for the portable toilets. Be sure to put a trash can next to the station for towel disposal.

Ensure that the potable water source and grey water disposal process meet the applicable standards and regulations.

Always put hand sanitizers next to toilets and food.

Topic Sanitary Services (cont.)

Sanitary Services (cont.)

- Showers
 - Estimate 75 people per shower head a day
 - Separate showering areas for men and women
 - Privacy from view



Unit 4:
Facilities Services

Visual 4-12

Key Points

The photo on the top right shows separate showers designated for men and women.

The photo on the bottom of the slide shows a larger shower area, with sheltered areas for shoe removal and shower preparation.

Just as with hand-washing stations, ensure that the potable water source and grey water disposal process meet the applicable standards and regulations.

Topic Sanitary Services (cont.)**Sanitary Services (cont.)**

- **Laundry services**
 - **Typically provided for health reasons, such as disease prevention or decontamination of clothing and PPE**



Unit 4:
Facilities Services

Visual 4-13

Key Points

General laundry services are contracted out. If possible, find a local laundry service to perform this function. Be specific regarding clothing organization, pickup, and delivery.

Establish a system so that responders receive their correct clothing back. It will be very difficult if all of the clothing is simply put into a large bin; instead, separate it using bags or another method. Providing receipts can be labor intensive, so consider this when requesting staff support. More information on determining staffing levels will be provided in Unit 9.

Security

- The Facilities Unit Leader is responsible for providing security services, including:
 - Check points and road closures
 - Patrol



Key Points

Facilities Maintenance

- Dust abatement
- Cold drink containers
- Repairs and improvements on facilities
- Cleaning services
- Vector control
- Secure storage



Unit 4:
Facilities Services

Visual 4-15

Key Points

Dust Abatement

Treat the area as needed to control dust using materials approved by the incident agency. For example, at a fairground, you would need to put water down often enough to control dust, but not so often as to create slick surfaces.

Some places allow binding agents, chemicals, or grey water. Most places have a policy that the Facilities Unit Leader should inquire about.

Stock Cold Drink Containers

The Facilities Unit Leader usually provides staff to get cold drinks from the Food Unit Leader and stock coolers. This includes sanitizing them according to protocol. Bleach or chlorine in the ice chest will eliminate contamination.

The containers may only include approved items.

Repairs and Improvements

Primarily for safety, include a clause in the Land Use Agreement to cover services from the facility custodian. This is a convenient and mutually beneficial way to accomplish minor tasks and repairs. For example, a contractor trailer may need an Occupational Safety and Health Administration (OSHA)-compliant staircase.

If the incident needs bulletin boards or a stage for a Briefing, the Facilities Unit Leader will see that they are built.

Cleaning Services (buildings, tents, all facilities)

The Facilities Unit Leader could hire a cleaning service or use the normal cleaning crew for the facility, or use volunteers or contract staff.

Cleaning must occur every day. Clean the floors, dump trash, pick up trash, clean the toilets in a fixed facility, and stock supplies. Dispose of kitchen grease. Ensure that the facilities are professionally cleaned at the end of the incident.

Vector Control

Familiarize yourself with local vector hazards:

- For insects, use fly traps, bleach on the ground (10:1 water–bleach mixture), and bee traps
- For a rodent issue, call the local animal control agency; try to go through a government agency before calling an exterminator
- For a wildlife problem, call a local fish and wildlife agency

Construction of Secure Storage

Construction occurs as directed. For example, after 9/11, the North Lot of the Pentagon was used for evidence collection and protection. The Facilities Unit Leader provided lights, generators, portable toilets, and other equipment. A more common example is secure storage for spare generators that need protection from the weather and theft.

Topic

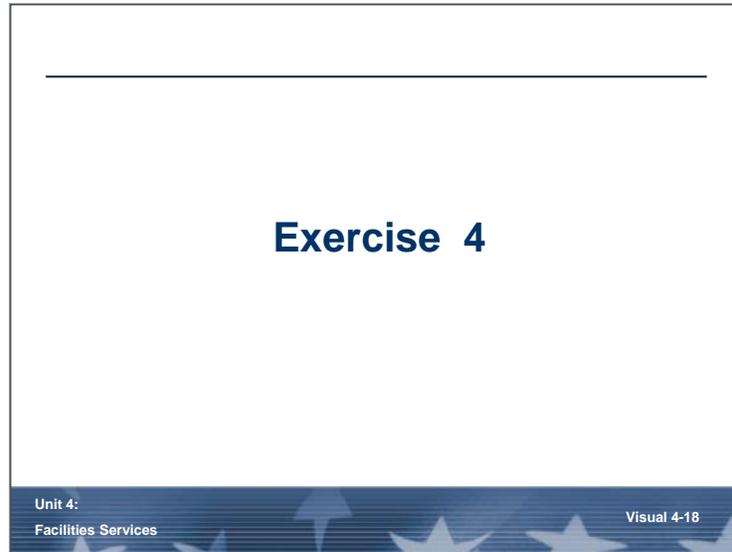
Activity: What Did the Facilities Unit Do?



Key Points

Topic

Exercise 4



Key Points

Objectives Review

1. *What services does the Facilities Unit Leader provide and maintain?*
2. *Describe the requirements for the services provided.*

Unit 4:
Facilities Services

Visual 4-19

Key Points

Unit Terminal Objective

Provide and maintain the required facilities-related incident services.

Unit Enabling Objectives

- Identify the services provided and maintained
- Describe the requirements for the services provided