Purpose of this Training
The purpose of this session is to discuss the vital role of good physical maintenance systems in allowing affordable housing properties to thrive.
**Maintenance Systems Principles**

Rural Development gives some guidance in its handbook that applies in principal to all affordable housing properties. This session uses the RD guidance as a framework to discuss issues that apply to all multi-family affordable housing.

7 CFR 3560.103 HB-2-3560 5.1 and 5.2 page 5-1 to 5-3

**Asset Preservation**

The existing portfolio of multi-family housing properties constitutes a major asset of the Government and/or property owners. The value of these assets depend upon the quality of their upkeep.

HB-2-3560 Chapter 5 describes the responsibilities of borrowers to maintain the physical condition of the project and of the RD Agency ("Agency") to exercise appropriate oversight of these responsibilities. The chapter describes the components of adequate physical maintenance, the role of the management plan, and the performance of a physical inspection of the project.

7 CFR 3560.103 HB-2-3560 5.1 and 5.2 page 5-1

**A Good System Includes...**

A very important part of the management agent's job is to maintain the physical condition of the property. By doing this, we:

- Provide decent, safe and sanitary housing
- Protect and enhance security
- Assure compliance with state and local laws

**Be Prepared...**

It is always good to act as if an inspector is coming to visit your property today. How would you do things differently?

**Maintenance Systems and Procedures: Overview**

- Work orders
- Energy conservation
- Tenant damages
- Response to calls
- Inspections
- Preventive maintenance
Managers must know what has happened from the time a complaint has been received or a problem has been noted, to an inspection confirming the condition has been corrected. The Agency requires the project to have a work-order system that tracks the date a complaint is received, the inspection to verify the complaint, a report describing the required repair or corrective action, the assignment of the repair, the completion report, and final inspection noting satisfactory completion of the work.

Audit Checklist: Work Orders
Be prepared to demonstrate your system to:
- Track date that complaint is received
- Conduct an inspection to verify the complaint
- Assignment of repair and final completion and inspection

All work order steps must be documented in writing!

“The most faded ink is better than the very best memory.” - Old Chinese Proverb
Energy Conservation

Energy conservation efforts are an ongoing responsibility of project management. The Agency requires managers to establish effective systems to reduce energy consumption. These may include energy audits to determine cost effective techniques of energy conservation, energy-efficient lighting, water-saving fixtures, low-flow toilets, energy-efficient appliances, insulation, caulking and weather-stripping, storm doors and windows, and regular cleaning and replacement of filters and other equipment.

What is Energy Conservation?
Reduction in the amount of energy consumed in a process by a system, person, organization, or society, through elimination of waste, and rational use.

Who Should Care?
All of the following have a vested interest in conservation and maintenance:
1. Owners
2. Supervisors
3. Managers/Maintenance
4. Residents

Audit Checklist: Energy Conservation
Be prepared to demonstrate ongoing conservation efforts. These can include:
- Energy efficient lighting & appliances
- Water-saving fixtures & low-flow toilets
- Insulation, caulking & weather stripping
- Storm doors & windows
- Regular cleaning of filters & other equipment

Conservation Methods

1. Efficient Lighting and Appliances
Emergency exit light fixtures can be retrofitted with LED kits. The LED units costs approximately $30.00 installed and can save over $24.00 per year in electricity alone ($28 for incandescent signs and $11 for fluorescents down to $4 for LED). LEDs also last over 40 times as long as incandescent and 11 times as long as fluorescents.

40 Watt fluorescent bulbs in laundry and community rooms can be replaced with 25 watt bulbs for additional savings and adequate lamination.

Water Heaters
Insulating domestic water heaters and reducing temperature to 120 degrees F generally provides sufficient hot water and saves money. A routine cleaning of water heaters will also reduce the chance of damaged elements and costly repairs. Be sure to know what your warranties state regarding fitting your hot water tanks with external insulation.
Supplemental Information

How are LED lighting products different from other lighting?

www.energystar.gov/index.cfm?c=lighting.pr_what_are

LEDs emit light in a specific direction, whereas an incandescent or fluorescent bulb emits light and heat — in all directions. For direct lighting applications LED lighting uses both light and energy more efficiently.

For example, an incandescent or compact fluorescent (CFL) bulb inside of a recessed can will waste about half of the light that it produces, while a recessed down light with LEDs only produces light where it’s needed — in the room below.

Incandescent bulbs create light by passing electricity through a metal filament until it becomes so hot that it glows. Incandescent bulbs release 90% of their energy as heat.

In a CFL, an electric current is driven through a tube containing gases. This reaction produces ultraviolet light that gets transformed into visible light by the fluorescent coating (called phosphor) on the inside of the tube. A CFL releases about 80% of its energy as heat.

LED lighting products use light emitting diodes to produce light very efficiently. The movement of electrons through a semiconductor material illuminates the tiny light sources we call LEDs. A small amount of heat is released backwards, into a heat sink in a well-designed product. LEDs are basically cool to the touch.

LED lighting, when designed well, can be more efficient, durable, versatile and longer lasting than incandescent and fluorescent lighting.

Heating and Cooling

A typical household uses the bulk of its energy for heating and cooling — up to 43% of the total utility bill. [Source – U.S. Department of Energy]

Foam insulator pads can be installed on all electrical outlets and switches on exterior walls. Heat can be lost through outlets in your wall. Foam outlet insulation — 5 for $1.00

Important note – Never allow resident to insulate their own outlets
Conservation Methods

2. Water-Saving Fixtures

Average Water Usage
Average American Family of Four

- 13.7% Leaks
- 21.7% Clothes Washer
- 26.7% Toilet
- 15.7% Faucet
- 5.3% Other
- 16.8% Shower

Chart based on American Water Works Association Research Foundation 1999 Study. EveAllsease 2011

- Other 5.3%, includes baths – 1.7% and dishwashers – 1.4%

Management could consider installing:
- Low Flow Shower Heads
- Toilet Miser

Important Note...some toilet tanks can be set to flush on a lower volume of water. Check to see if this is true at your properties.

Less water = Money Savings

According to the EPA, a dripping fixture COSTS.

1 drip a second = 3,000 gallons a year

Many things can contribute to water waste. A couple of things we can control include:
- Leaky Faucets
- Leaky Toilets

Repairs leaks = Money Savings

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Conservation Methods

3. Insulation, Weather-stripping, Caulk

Insulation
Where approved, attic and wall insulation can be adjusted:
- From R-18 attic insulation to R-38
- Wall R-13 Insulation

Better insulation = Money Savings

Weather-stripping
- Repair or replace worn weather-strip around doors as needed.
- Repair or replace worn door sweeps on exterior doors

"Less air In" = Money Savings

Caulking
Caulking any area where air could get in or out is very important. Some areas to inspect include:
- Windows
- Doors
- Baseboards

Cheap caulk = Money Savings

Conservation Methods

3. Storm Doors / Windows

Storm doors and windows need to fit properly with no seals broken.
Properly fitting doors and windows that are double pane and argon filled usually provide the best energy efficiency.

Good storm doors and windows = Money Savings

Conservation Methods

5. Cleaning of Filters and Equipment

Keeping equipment clean adds life to the equipment and reduces the overall cost to the property in expensive repair bills. At a minimum, we should clean:
- Refrigerator Coils
- Heating and cooling units
- Air Handler filters

Cleaning of equipment = Money Savings

Other Important Factors in Energy Conservation

Use every opportunity to check units for cost savings.
Check the key areas during:
- Routine Inspections
- Requests for repairs

Working smarter, not harder = Money Savings
Tenant Damages

The Agency requires management to establish a policy and implement a system to obtain reimbursement for damage caused by the tenant to the property beyond normal wear and tear. The policy is to be stated in the tenant’s lease.

Audit Checklist: Tenant Damages
Be prepared to provide your policy for obtaining reimbursement for tenant damages beyond wear and tear. Be able to point out this policy in your lease and property rules.

LIHTC Rules and Maintenance

**Eligible Basis:** The tax benefits claimed by the owners of tax credit properties are based on the value of the property (the “eligible basis”). Removing amenities that are abused by the residents may make “common sense”, but may actually harm the tax credits by reducing the eligible basis. Do not remove any features without consulting with the manager/owner to determine if the action would risk the credits.

**Vacant units:** Per the LIHTC Unit Vacancy Rule (UVR), in order to claim tax credit benefits on a vacant unit it must be turned and made rent-ready in a reasonable period of time, regardless of whether there are applicants on the waiting list or not. State LIHTC monitors generally allow 30-90 days before this becomes a major concern. Also, using appliances and other amenities from vacant units to replace items that go bad in occupied units results in vacant units that are not rent-ready. The missing items must be replaced immediately to avoid risk to the credits.
Response to Calls

HB-2-3560  5.3 C pages 5-2

Good upkeep requires a speedy response to complaints or unforeseen problems. The Agency requires managers to establish a system for responding to tenant complaints or to unexpected malfunctions or damage such as leaks, broken windows, etc.

Audit Checklist: Response to calls
Be prepared to provide your plan for responding to tenant complaints or property malfunctions.

Reminder: While Interacting with Applicants and Residents...
It is important to follow good Fair Housing principals and procedures.

Fair Housing
The Fair Housing Act, among other things, makes it illegal to discriminate against someone because of a protected class.

Possible Practice Session Topic for Team Discussion:
- Can team members name all of the protected classes? A team may use the “friends cry” acronym, or develop another that they will remember better.

For Discussion
Why is it important to understand who should answer questions regarding the availability of vacant units?

Why should we be friendly, but not friends with residents?

Why is flirting a bad idea?

While you are removing snow at a building, a resident approaches you and asks you to fix a leaky faucet “while you are here, to save me having to call the office.” Why is it a bad idea to fulfill the request?
Frequent, regular inspections are a major component of an effective maintenance system. The Agency requires management, at a minimum, to perform an annual inspection of each occupied unit and to inspect each unit at move-in and move-out. Inspecting a unit with the tenant at move-in and move-out establishes the condition of the unit at the time the tenant takes possession, and may help clarify responsibility for any damages that have occurred in the unit during the occupancy period.

**Audit Checklist: Inspections**

Be prepared to demonstrate your compliance at a MINIMUM with a routine of:

- Inspections at move-in and out
- Annual unit inspections

It’s a good idea to have a written procedure in place regarding unit inspections which addresses the following items:

- Personnel conducting inspections
- Frequency of inspections
- Notification to residents
- Inspection documentation
- Addressing deficiencies

We suggest keeping a separate unit maintenance file. Unit inspections (including copies of move-in and move-out inspections), copies of receipts, warranty information for appliances in the unit can be maintained in the Unit Maintenance file.

**Regulatory Inspections: Basics of Compliance Reviews**

Physical inspection practical pointers:

- Notify tenants in advance of the inspection date.
- Arrive before the inspector.
- Give the inspector your full attention and cooperation.
- Take notes.
- Document problems and mention your plans for correction.
- Never attempt to hide anything, but also do not feel as if you have to do the inspector’s job for them.
HUD and Other Programs

The Uniform Physical Conditions Standard (UPCS) is the physical inspection protocol used by a HUD REAC inspector when conducting a review. It is also commonly used by HOME and tax exempt bond reviewers.

Note: Although the UPCS is not explicitly the standard used by Rural Development (RD)-financed properties, the principals involved in the protocol also apply to RD properties as well.

LIHTC

IRS Reg 1.42-5 8823 Guide Chapters 1 and 19

Compliance reviews are conducted by the state HFA or a contractor (contractors can do all state HFA duties EXCEPT issue 8823s).

- The 1st visit will be no later than the end of the second calendar year after the last building is placed in service.
- Example: If the last building is PIS 6/1/12, the 1st visit must be no later than 12/31/14.
- The state will return at least every 3rd year thereafter

The reviews include a physical inspection of exteriors and unit interiors, including health & safety issues. They also include a review of tenant files for those same units. At least 20% of the units and files are reviewed. Units inspected are inspector’s choice.

IRS Reg 1.42-5 8823 Guide Chapter 6

Physical site monitoring by state HFAs were required beginning on Jan 1, 2001.

A state may choose between:
1. Uniform Physical Conditions Standard (UPCS, a HUD code),
2. Local Code, or
3. RD’s Standard – If MOU is in place

UPCS is the most common choice for LIHTC purposes. If local code is selected, it must be at least as restrictive as UPCS.

IRS Form 8823

State monitoring agencies use IRS form 8823 to report noncompliance with program rules to the IRS. Line 11 c is the line they would check to report noncompliance found at a physical inspection.

The UPCS “Dictionary”

The UPCS uses the UPCS Dictionary of Deficiency Definitions. That Dictionary defines very specific severity codes for physical problems 1-3 (with 3 the most severe) and Health and Safety. The UPCS dictionary can be found at:

www.hud.gov/offices/reac/pdf/pass_dict2.3.pdf

Note: an affordable “Flip Guide to UPCS” tool is available that distills all of inspectable areas and deficiencies into a 6-page laminated reference tool. Further information can be found at www.zeffert.com.
## Inspectable Areas: Overview

<table>
<thead>
<tr>
<th>Inspectable Area</th>
<th>1. Site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Areas Inspected</strong></td>
<td>Fencing, Retaining Walls, Grounds, Lighting, Mailboxes, Signs (project or areas of the project)</td>
</tr>
<tr>
<td><strong>Areas of possible concern</strong></td>
<td>Abandoned vehicles, Dangerous walkways or steps, Poor drainage, Septic tank back-ups</td>
</tr>
</tbody>
</table>

**Health and Safety** applies to all areas.
Routine maintenance is VITAL. Deficiencies left uncorrected often increase the severity level.

### Inspectable Area: 2. Building Exterior

"Building Exterior. Each building on the site must be structurally sound, secure, habitable, and in good repair. Each building's doors, fire escapes, foundations, lighting, roofs, walls, and windows, where applicable, must be free of health and safety hazards, operable, and in good repair."

### Inspectable Area: 3. Building Systems

"Building Systems. Each building's domestic water, electrical system, elevators, emergency power, fire protection, HVAC, and sanitary system must be free of health and safety hazards, functionally adequate, operable, and in good repair."

### Inspectable Area: 4. Dwelling Units

"Dwelling Units. Each dwelling unit within a building must be structurally sound, habitable, and in good repair... All areas and aspects of the dwelling unit must be free of health and safety hazards, functionally adequate, operable, and in good repair."

**Some Areas Inspected**

- Bathroom & kitchen
- Call-for-aid system (if applicable)
- Electrical systems
- Hot water heater
- HVAC
- Lighting
- Outlets/switches
- Patio/porch/balcony
- Smoke detectors
- Stairs
- Ceilings, doors, walls, floors, windows

**Units must have**

- Hot and cold running water
- Adequate source of potable water
- Bathroom in proper operating condition
  - usable in privacy,
  - adequate for personal hygiene
- At least one smoke detector on each level of the unit

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5. Common Areas

"Must be structurally sound, secure, and functionally adequate for the purposes intended."

Some Areas Inspected

- Basement
- Garage/carport
- Restrooms
- Closets, utility and mechanical rooms
- Community rooms
- Halls/corridors
- Stairs
- Kitchen
- Laundry rooms
- Office
- Porch
- Patio
- Balcony
- Trash collection areas

Health and Safety

"All inspectable areas must be free of Health and safety hazards."

Examples of health and safety issues:

- Air quality
- Electrical hazards
- Elevators
- Emergency/fire exits
- Flammable materials
- Garbage and debris
- Handrail hazards
- Infestation
- Lead-based paint

Exigent (immediately life-threatening) hazards must be corrected promptly. The inspector will leave a list and a tight deadline to fix these issues.

- Air quality problems such as propane, natural gas, or methane gas detected.
- Electrical hazards such as exposed wires, open panels, and water leaks on or near electrical equipment.
- Carbon monoxide hazards such as gas or hot water heaters with missing or misaligned chimneys.
- Emergency equipment, fire exits, and fire escapes that are blocked or not usable.
- Fire safety issues: missing or inoperative smoke detectors (including missing batteries), expired fire extinguishers.
- Window security bars preventing egress from a unit.

The most common issues that Zeffert & Associates finds include:

- Smoke detectors that do not work.
- Blocked egress
- GFI outlets that do not work

These all can usually be prevented beforehand by a walkthrough!
Most maintenance work can be predicted and scheduled—this is typically described as preventive maintenance. The Agency requires managers to spell out procedures for scheduling routine tasks, such as garbage and trash removal, snow and ice removal, grounds upkeep, routine painting, and minor repairs. Procedures are also required for the routine maintenance of equipment consistent with service information provided by the manufacturer—biweekly or monthly routine oiling, adjusting, replacement of filters, safety checks of alarms, and outside lighting, etc.

Preventative Maintenance is essential to maintaining the viability of a project. Having a preventative maintenance system in place can help minimize the need for costly repairs, and extend the lifetime of systems, equipment and the property as a whole. Preventative maintenance is all about being proactive instead of reactive. Through solid preventive maintenance, the number of overall work orders will be reduced, which results in increased resident satisfaction.

Audit Checklist: Preventive Maintenance
Be prepared to provide your plan for scheduled tasks:
- Garbage and trash removal
- Snow and ice removal
- Grounds upkeep
- Routine painting
- Minor repairs
- Heating and A/C equipment
- Water Heaters
- Carpets/Drapes
- Roof, gutter and Fascia inspection
- Major appliances
- Elevators
- Sewer lines
- Painting (Interior & Exterior)
- Windows

Also be prepared to provide your plan for service according to manufacturer specs:
- Biweekly or monthly routine oiling or adjusting
- Replacing of filters
- Safety checks of alarms
- Checks of outside lighting

We suggest maintaining a Preventive Maintenance binder. This binder would include a listing of all Preventative Maintenance items, the due date for completion, and the actual date that the item was completed, supported by documentation.
Workplace Safety

Maintenance personal is crucial to create and maintain a thriving community. It is vital to provide a safe working environment and provide the necessary equipment so these key players can complete work safely.

Occupational Safety & Health Administration
OHSA is the primary agency that is responsible for developing and implementing requirements and enforcing these requirements when it comes to safety in the workplace.

For more information on OSHA requirements please visit www.osha.gov

OSHA 29 CFR 1910

- **Personal Protective Equipment (PPE):** Equipment that is needed to safely perform some job functions
  - **Examples:**
    - Eye and face protection (goggles, face shields)
    - Head protection (hard hats)
    - Foot protection (safety shoes)
    - Hand protection (gloves)

- **Material Safety Data Sheets (MSDS) Binder:** A binder that contains all of the MSDS sheets for any required products containing hazardous chemicals stored onsite.
  - **Responsibilities:**
    - **Manufacturer:** Provides a MSDS sheet for products containing hazardous materials.
    - **Employer:** Make these documents available to employees.
    - **Employees:** Access these documents before using the product and adhere to the directions and policies of the employer.
A Few Words of Encouragement...

Sometimes, we must do a lot with a little in affordable housing, and that makes it challenging. Sometimes it can feel difficult to do your job well. Not everyone can. Those that find ways to succeed, however, are a special group that have skills that are in demand. It is good for you, good for your community and good for your nation to succeed at providing affordable housing. Not everyone can say that about their job!

In Review...

"WE TRIP" if we do not follow good maintenance routines and policies that include:

W ________________________________
E ________________________________
T ________________________________
R ________________________________
I ________________________________
P ________________________________

Good maintenance systems above all require interested and professional staff!

...if you don’t do it, who will?

...and never forget to keep safe out there!!!
SAFE, ACCESSIBLE, AND AFFORDABLE HOUSING IS A CRITICAL COMPONENT IN GROWING HEALTHY COMMUNITIES

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