SECTION A  INSPECTION TEAM

The number of people assigned to perform the inspection is usually determined by the size of the HA. In HAs of 250 or fewer units, it is usually done by a maintenance mechanic or supervisor, but whoever does the inspection should be qualified to identify any maintenance problem needing correction and to distinguish normal wear-and-tear from resident damage. The inspector should also be knowledgeable about the equipment and system components, and how they function, to ensure both the residents' and inspector's safety during tests like checking the temperature/pressure valve.

In order to ensure quality inspections, HA personnel should be adequately trained and have experience in inspection.

SECTION B  RESIDENT-ASSOCIATION MEETING

Because of the efforts of HUD and HAs to encourage resident participation in all aspects of HA operations, periodic meetings with residents, Resident Councils (RC), and Resident Management Corporations (RMC) should be held to explain the need for inspections, the process, and its benefits. Residents should be encouraged to participate in the actual inspection of their units so that they will understand the maintenance standards to be met. Other topics include:

- Resident participation in assessing maintenance needs and in planning services;
- Resident involvement in the establishment of HA policies;
- Business opportunities for resident organizations to contract for maintenance services;
- Resident employment;
- Maintenance training for residents who want to do their own repairs;
- Maintenance or management-skills training.

SECTION C  DEVELOPMENT AND UNIT INSPECTIONS

It may not be practical to perform the entire range of annual and periodic inspections at the same time. Living-unit inspections can be completed separately from the building-and-grounds inspection. System-component inspections may be scheduled seasonally or per manufacturer's recommendations.
The following is to assist the HA Inspectors in conducting inspections. This presentation is not intended to be all-inclusive, but it is representative of the multitude of elements that should be evaluated during development and unit inspections.

1. SITES

The entire site should be systematically surveyed for deterioration and erosion, safety, and security problems. Findings should be recorded on whatever Inspection Form meets the need of the HA.

a. Lawns (grass areas)

Look at the general condition of lawns: bare spots, drainage problems, and any need for trash or debris removal.

b. Plants (trees, shrubs, hedges, ground cover)

Look for shape and structure of growth, disease and insect infestation, and any maintenance required, such as pruning, trimming, and root removal.

c. Paved Areas (streets, drives, parking, walks, gutters)

Look for cracks, settlement, and other failures in the surface and base, effectiveness of expansion joints, adequacy of drainage, and the accumulation of any debris.

d. Site Drainage (inlets, catch basins, manholes, ditches, drainage lines, swales, properly located splash blocks)

Look for wet or soggy areas, erosion, and drainage stopped by rubbish.

e. Site Amenities (stairs, screen walls, benches, rails, play and recreation areas, tot lots, and lighting)

Look for worn out, damaged, or missing parts, lights not working, unsafe tot-lot equipment and ground cover, rotting wooden members, and corrosion of metal posts.
2. STRUCTURES

a. Exterior Walls

Look for cracks and settlement in masonry, poor mortar joints and caulking, other structural deterioration, efflorescence, and graffiti. In frame buildings, also look for deterioration, warping, splitting, rotting, delamination, signs of moisture penetration and termite infestation.

b. Foundations

Look for cracks and areas where water can accumulate, leakage, settlement, adequacy of parging and dampproofing, fungus, and rot and termite infestation of wood members on foundation walls.

c. Crawl Spaces

Look for obstruction of ventilating openings, evidence of dampness or deteriorated vapor barriers, corrosion of pipes and hangers, deterioration of structural members; check the adequacy of floor and pipe insulation, and check for termite and vermin infestation. If gas lines run through the crawl space, check for the odor of gas.

d. Windows and Exterior Doors

Look for broken or cracked glass panes and, in the case of double-paned windows, look for cloudiness and condensation; check putty, painting, caulking, weather stripping, hardware, sills and lintels, storm windows, screens, and the ease of operation of doors and windows.

e. Porches, Balconies, and Steps

Examine canopies, flashing, handrails, and steps for deterioration and safety. Look for sinking or shifting of porches and deteriorating floor structures.

f. Roofs

On built-up roofs, look for blisters, alligating, depressions, missing gravel coverage and other deterioration or damage. Examine gravel stops, flashing, copings, and roof terminations for damage and deterioration. Ensure that no unauthorized antennas have been installed, and that no overhanging tree branches can damage the roofs and gutters. Check the condition of roof fans and vent pipes. On shingle roofs look for curling, brittleness, breakage, loose nails, cap
deterioration, and other damage. Examine gutters, downspouts, fascias, soffits, and vents for deterioration, peeling, and warping.

g. **Basements**

Look for signs of dampness, condensation, insect or rodent infestation, condition of floors, and exposed joists, as well as adequacy of drainage. Inspect space-heating and domestic hot-water heating systems.

h. **Stairways**

Check for loose or worn treads, loose handrails, damaged or soiled walls, broken windows, and inoperative lights. Look for incandescent lights, which should be replaced with fluorescent units.

i. **Attic Space**

Look for obstruction of ventilating openings, evidence of dampness or deterioration, adequacy of rafters, sheathing, and insulation. Examine the fit of stack vents to the roof.

j. **Incinerators and Compactors**

Look for adequacy of sanitation, ventilation of room, safety, housekeeping, and maintenance. Observe the operation of the compactor or incinerator for deterioration and other inadequacies.

3. **INTERIOR OF LIVING UNITS**

a. **Painting**

Examine interior surfaces for defects and condensation. Note any cracking, flaking, and other damage to plaster and other surfaces. Look for non HA-approved paint colors and other unacceptable forms of decoration.

b. **Floors**

Look for worn areas, broken or loose tile, sagging floors, deterioration of underlayment, and condition of baseboards.
c. Window Shades, Blinds, and Curtain Rods

Look for damaged or worn shades, cords, and tapes, defective springs and broken or missing parts.

d. Kitchen Ranges

Check lighting of top burners and oven, the operation of controls, and adequacy of burner and pilot flames. Examine range for cleanliness, damaged hardware, damage to porcelain surfaces, and for proper closing of the oven door.

e. Refrigerators

Check refrigerator for cleanliness, condensation, excessive frost accumulation, damaged evaporators, damage to doors and deterioration of door gaskets, liners, handles, shelving, and other parts, and excessive noise in operation. Check that there is adequate space between refrigerator and wall for ventilation and that coils are clean.

f. Domestic Hot-Water Heaters (DHW)

Check for adequate temperature/pressure valves and drain pipes, and that no combustible material is stored in close proximity to burner and flue. Inspect the size and color of flame and check temperature setting, which should not exceed 120 degrees F. Turn on a lavatory or kitchen faucet to check hot-water flow.

g. Space Heating

In gas furnaces, inspect the pilot and the burner flame size and color; check the draft control, damper position, and the cycles of operation by operating the thermostat. Check cleanliness of the filter. Look for dust, debris, deterioration, unusual noise in operation, and any hazardous conditions. For hot-water or steam systems, look for leaks, valve and trap operation, and cleanliness of units. For heat pumps look for proper operation during both heating and cooling cycles.

h. Plumbing Fixtures

Look for leaks, dripping faucets, running toilets, inoperable cut-off valves, deteriorated fixtures, and caulking around tubs. Flush the toilet and observe its operation.
l. Electrical Installations

Inspect the electrical panel for deterioration. Check the size of fuses or breakers relative to capacity (overloaded circuits); fuses should not be "jumped" by using inserted coins. Check ground-fault breakers for proper operation. Look at light fixtures, switches, and outlets for breakage and deterioration, missing cover plates, and loose connections. Check smoke detectors for proper functioning.

j. Housekeeping

Observe the quality of housekeeping throughout the unit; note conditions on the inspection form.

k. Termites, Rodents, and Insects

Look for evidence of roaches, termites, other bugs, and mice and other vermin.

4. SYSTEM COMPONENTS

a. Electrical Distribution System

Look at the HA-owned electrical distribution system—wiring, switches, and transformers—for breakage and deterioration.

b. Heating and Domestic Hot Water Plants

Inspect the pilot and the burner flame size and color. Check all filters. Check that the expansion tank is not water-logged. Check thermostats, temperature/pressure valves, and cycle of operation. Verify that operation logs are regularly maintained. Look for combustible material in close proximity to the systems.

c. Gas-Distribution System

Check that HA-owned meters are working properly. Determine whether cathodic protection turns out sufficient voltage to protect the underground ferrous-metal gas lines. Check for any leaks in exposed pipes and joints.
d. Water and Sewage Lines

Look for evidence of broken pipes (soggy areas, sink holes). Check that water meters are working properly.

e. Elevators

Check cable and brake shoes for deterioration. Check that all panel buttons, both on the car and on each floor, are functioning properly. Check functioning of elevator car doors, including electric eye safety devices, and test emergency communication system.

f. Special Purpose (Community Buildings, Mechanical Rooms, Maintenance Shops)

All above-listed items which are part of these facilities should be inspected, as well as any items unique to these facilities, such as washing machines, dryers, dishwashers, and alarm systems.

SECTION D WORK ORDERS

Correction of deficiencies identified during inspections should be done through issuing work orders as discussed in Guidebook I—Maintenance Program, Chapter Seven, Section C.

END OF CHAPTER THREE