

ONAP Training & Technical Assistance

Virtual Sessions

Improving Maintenance Management Training

November 12-13, 2020 | 12:30 PM – 4:30 PM / EDT

Presented by Walt Smith, PROFESSIONAL EXPERIENCED TRAINERS

Part 2



This virtual training is sponsored by the U.S. Department of Housing & Urban Development's Office of Native American Programs and the National American Indian Housing Council

WHEN TO CONTRACT OUT MAINTENANCE SERVICES

PREVENTIVE
MAINTENANCE
MANAGEMENT





**WEBSTER - PREVENTIVE -
KEEP FROM HAPPENING**



**IMPORTANCE OF
PREVENTIVE
MAINTENANCE**





SETTING OBJECTIVES



STRUCKING A PM PROGRAM



Survey for Preventative Maintenance

Development _____

Parking Lot

- (1) Does this development have asphalt paved parking lots? Yes No
- (2) Do the parking spaces have concrete bumper wheel stops? Yes No
- (3) Does the parking lot have rainwater drainage catch basins? Yes No

Roof Systems

(1) What type of roofing system does this development have ?

- | | | | |
|--|--------|-----|----|
| | Check | | |
| Built-up roof with grave | _____ | | |
| Build-up roof with an emulsion coating | _____ | | |
| Asphalt Shingles | _____ | | |
| Does this development have downspouts & gutters? | | Yes | No |
| Does this development use dumpsters for garbage removal? | Yes | | No |
| If so, how many dumpster areas are there? | _____# | | |

PM MAINTENANCE CHECKLIST

- SAFETY TESTS
- MONTHLY
 - ✓ Test smoke alarms and carbon monoxide detectors.
 - ✓ Test Ground Fault Circuit Interrupt (GFCI) receptacles and GFCI circuit breakers.
 - ✓ Inspect and test automatic garage door opener auto-reverse mechanism and other safety features
 - ✓ Perform a general inspection of the heating and air unit and water heater.
- INTERIOR MAINTENANCE
- MONTHLY
 - ✓ Check and replace furnace air filter.
 - ✓ Inspect the foundation, pipes, vents and ducts.
 - ✓ Pour water down unused drains.
 - ✓ Inspect and clean faucet aerators and showerheads.
 - ✓ Clean frost-free refrigerator drain pan.
 - ✓ Clean kitchen exhaust fan filters

PM MAINTENANCE CHECKLIST

- INTERIOR MAINTENANCE

- ANNUALLY

- ✓ General furnace inspection: look for rust and/or scaling on heat exchanger; check for the proper color flame; note odd noises and sounds; check venting pipes for operation and condition.
- ✓ Test for proper draft at furnace and/or water heater diverter; examine flue for leaks, rust and damage.
- ✓ Examine and test pressure relief valve on the water heater; check for leaking.
- ✓ If heat is supplied by a hot water boiler system; check water pressure; drain expansion tank; bleed radiator.
- ✓ Inspect and operate plumbing shutoff valve.
- ✓ Inspect fireplace firebrick and mortar for cracks and deterioration.
- ✓ Inspect fireplace flue for creosote buildup.
- ✓ Inspect toilet for stability.
- ✓ Clean and seal tile grout.
- ✓ Vacuum smoke alarms, refrigerator coils, heat registers and vents.
- ✓ Drain 1 to 2 gallons of water from the water heater.

EXTERIOR MAINTENANCE

Spring and Fall

- ✓ Clean Debris out of all gutters; ensure downspout traps are free of obstruction.
- ✓ Inspect all exterior siding and trim wood. Re-caulk all open joints, holes, etc. Paint all areas that show exposed wood or are in need.
- ✓ Inspect gutters, downspouts, and roof projections for leaks, and repair as necessary.

FIRE PROTECTION

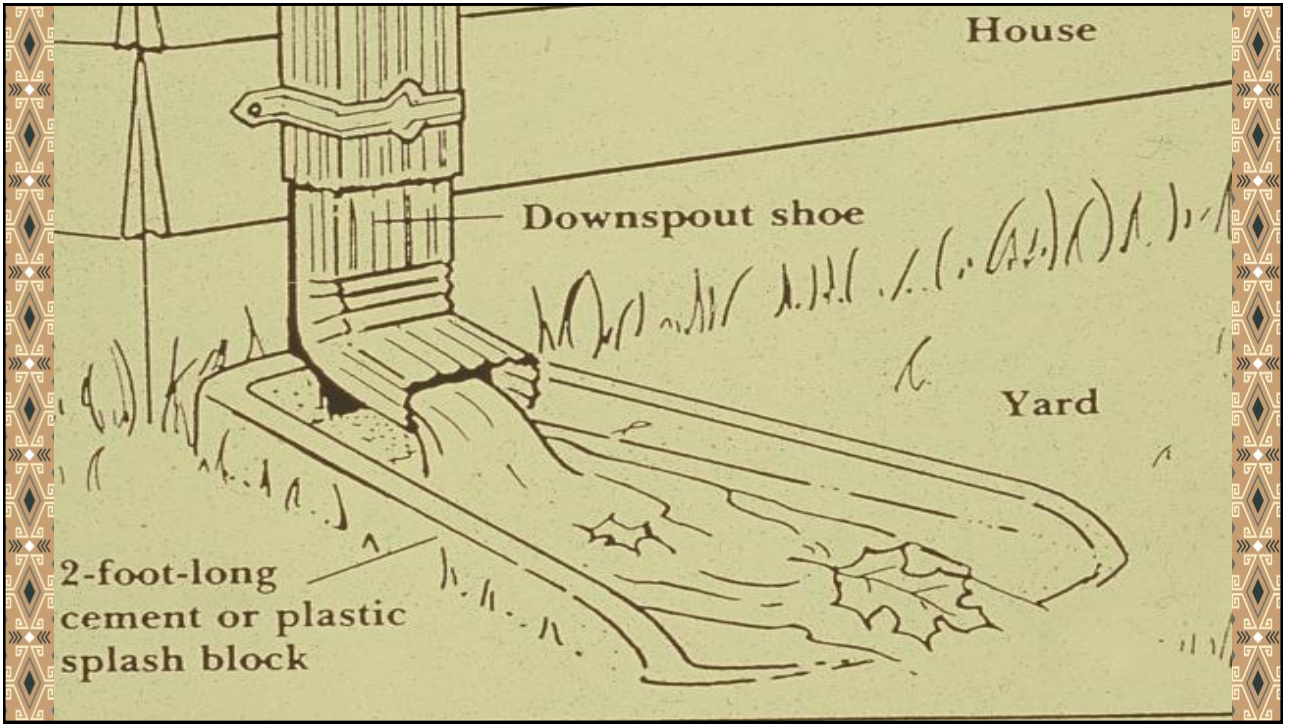
MONTHLY MAINTENANCE SCHEDULE

DESCRIPTION	J	F	M	A	M	J	J	A	S	O	N	D
EMERGENCY LIGHTING												
Active test light (must come on)												
Light direction – in travel path?												
EXIT LIGHTING												
Check A/C light (must be on)												
Test D/C backup light												
FIRE ALARM PULL STATIONS												
Check for damage or missing parts												
Check reset												
PORTABLE FIRE EXTINGUISHERS												
Extinguisher in designated location												
Accessibility not obstructed												
Operating instructions legible and facing outward												
Seals or tamper indicators intact												
Extinguisher fully charged and operable												
No obvious physical damage, corrosion, leakage, or clogged nozzles												

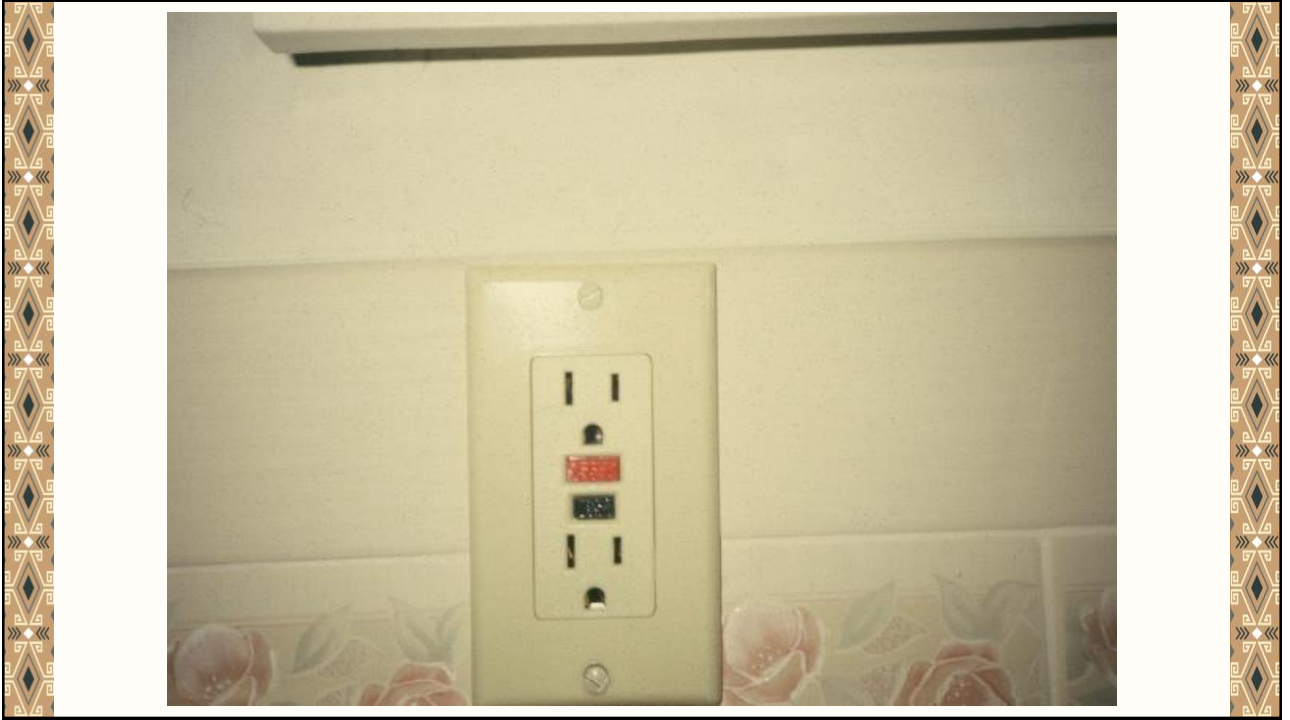
- ✓ Trim trees or shrubs that touch building structures or overhead electrical lines.
- ✓ Inspect and lubricate windows; inspect and repair window glazing. Caulk all areas around windows as needed.
- ✓ Inspect and clean storm window weep holes.
- ✓ Inspect and replace weather stripping.
- ✓ Clean debris away from the house and other structures, under decks, porches, and from basement window wells.
- ✓ Clean gaps between deck boards, particularly above joists.
- ✓ Clean around air conditioner compressor.
- ✓ Scrub mildewed areas of house and other structures' siding.
- ✓ Note any cracks in the foundation, brick, or stucco. Also note any loose or missing mortar joints between bricks/stone.
- ✓ Open hose bibs in the spring; close and drain them in the fall.
- ✓ Check septic system drain (leach) field for flooding or odor.
- ✓ Asphalt driveways should be resealed when water begins to soak into the surface. Look for water to bead up on the surface.
- ✓ If you have a flat or slightly pitch roof with a membrane covering, such as rubber, inspect it once a year. Look for open seams, bubbles, blisters, wrinkles, cuts and/or open gaps.

Preventative maintenance will go a long way toward preserving the building and equipment. The result is safer and healthier living environment. Following these tips and suggestions will not eliminate normal repair and upkeep, but will help to eliminate emergencies.









TESTING GROUND FAULT CIRCUIT INTERRUPTERS (GFCI)

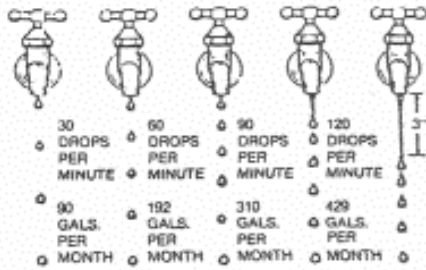
GFCI's are life saving devices. These outlets are required to be used in the kitchen, bathroom and any outlet located outside. To ensure they are working properly they need to be tested every 30 days. The procedure for testing is as follows:

1. Plug an electrical appliance (radio, hair dryer, etc.) into the GFCI outlet.
2. Turn ON the appliance.
3. While it is running push the test button on the GFCI outlet. The appliance should shut off.
4. If it did not shut off, unplug the appliance and call the maintenance department immediately to report that the GFCI is not working and they will come out and replace it.
5. If the appliance did shut off, unplug it and push the reset button on the GFCI. It is working as it was designed to work.

I have been instructed in the proper procedure for testing GFCI outlets and I will test them every 30 days.



FIX THE LEAKY FAUCET!



HOT WATER LEAKS ADD TO YOUR ENERGY BILLS!

	Kwh's/ Month	Gallons Propano/ Month
30 Drops/Minute	22	1.02
60 Drops/Minute	48.38	2.22
90 Drops/Minute	77.64	3.48
120 Drops/Minute	106.83	4.89
3" Solid Stream	274.27	12.73

Average loss of water from leaking faucets over a period of 1 month

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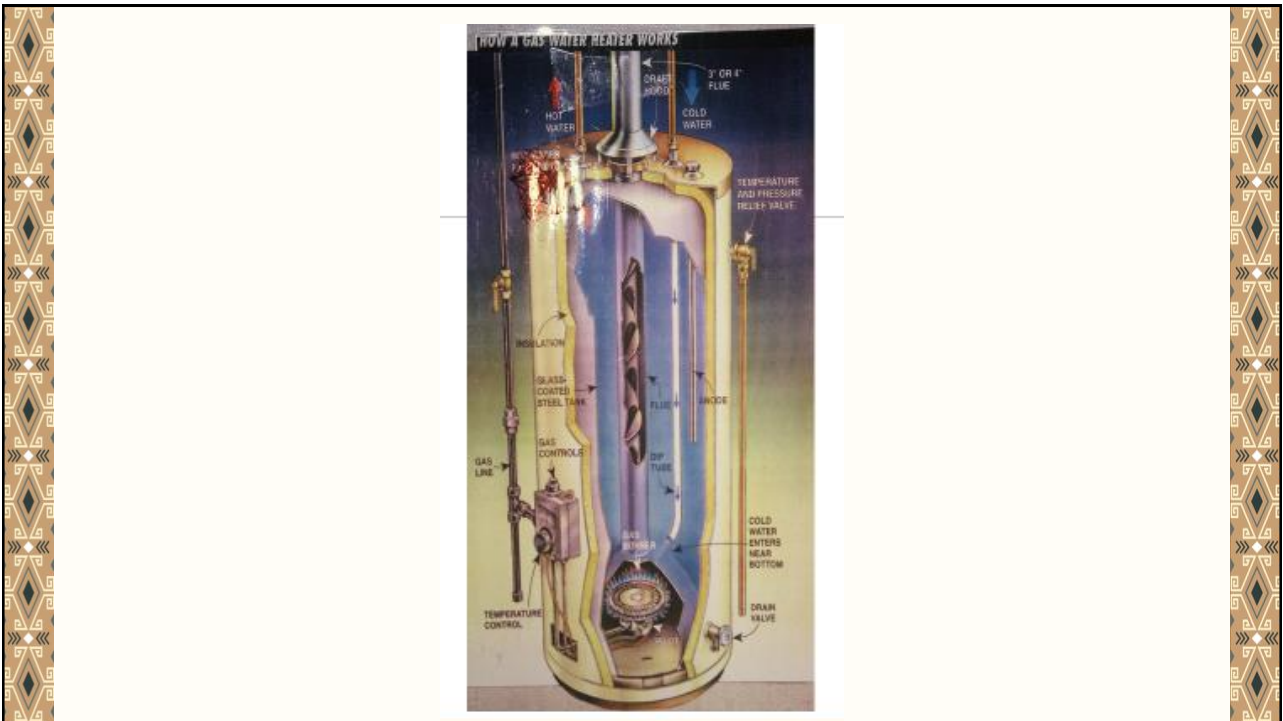




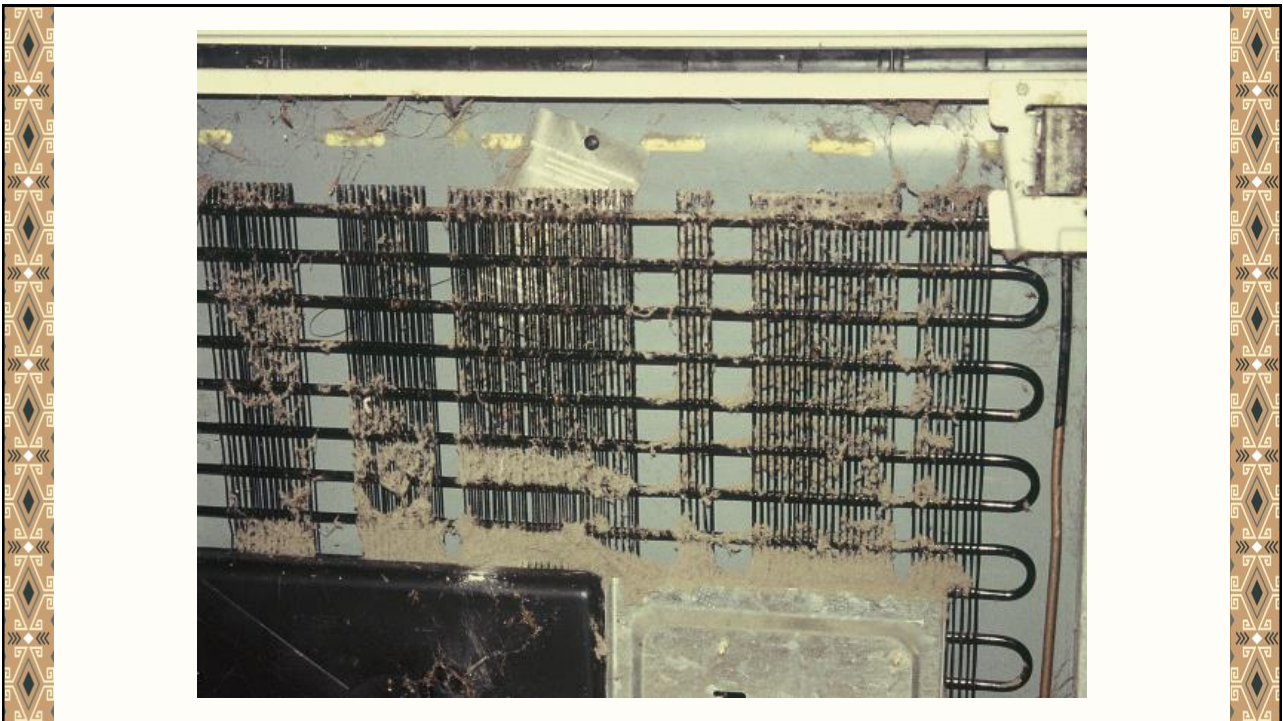
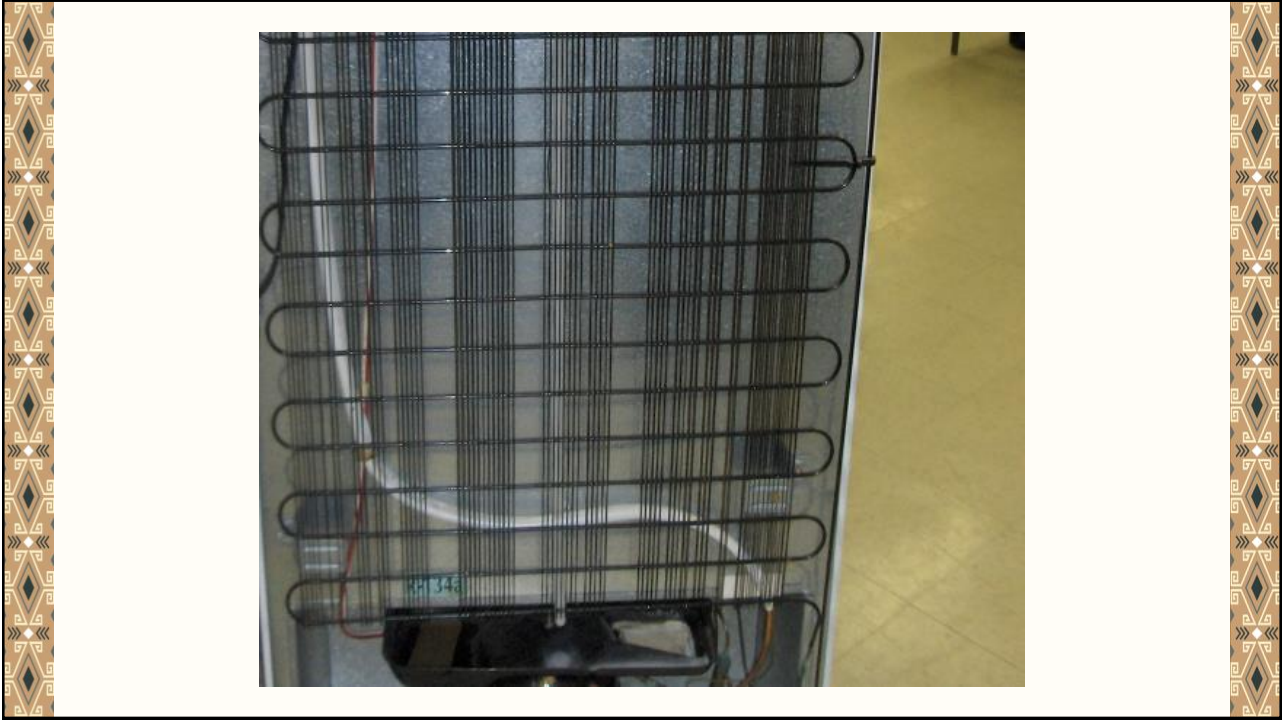
What does a furnace tune up consist of?

- Cleaning components like the heat exchanger, combustion chamber, burner, jets, blower motor and fan, among other things.
- Checking and clearing the condensate lines. These lines drain not only water generated from gas combustion; they also drain condensation that collects on the A/C coil above the furnace.
- Doing a temperature differential test. That means measuring the temperature of the air going into and leaving the furnace.













**POSITIVE EFFECTS OF
BUILDING
and
GROUNDS**

REDUCING ENERGY CONSUMPTION

<u>System</u>	<u>Energy Use %</u>
Heating & Ventilation	50 - 60
Lighting	25 - 35
Cooling	15 - 25
Water Heating	4
Miscellaneous	4

PURCHASING and INVENTORY CONTROL

Maintaining Stock Levels

Average monthly usage

Safety stock

Reorder points

Order quantities



HD Supply Facilities Maintenance

General Services Administration (GSA) Synopsis

HD Supply Facilities Maintenance does business the way you do business. Our GSA Schedule gets you the products you need, when you need them, with tax-free, GSA-discounted pricing. The contract details of our GSA Schedule can be found below.

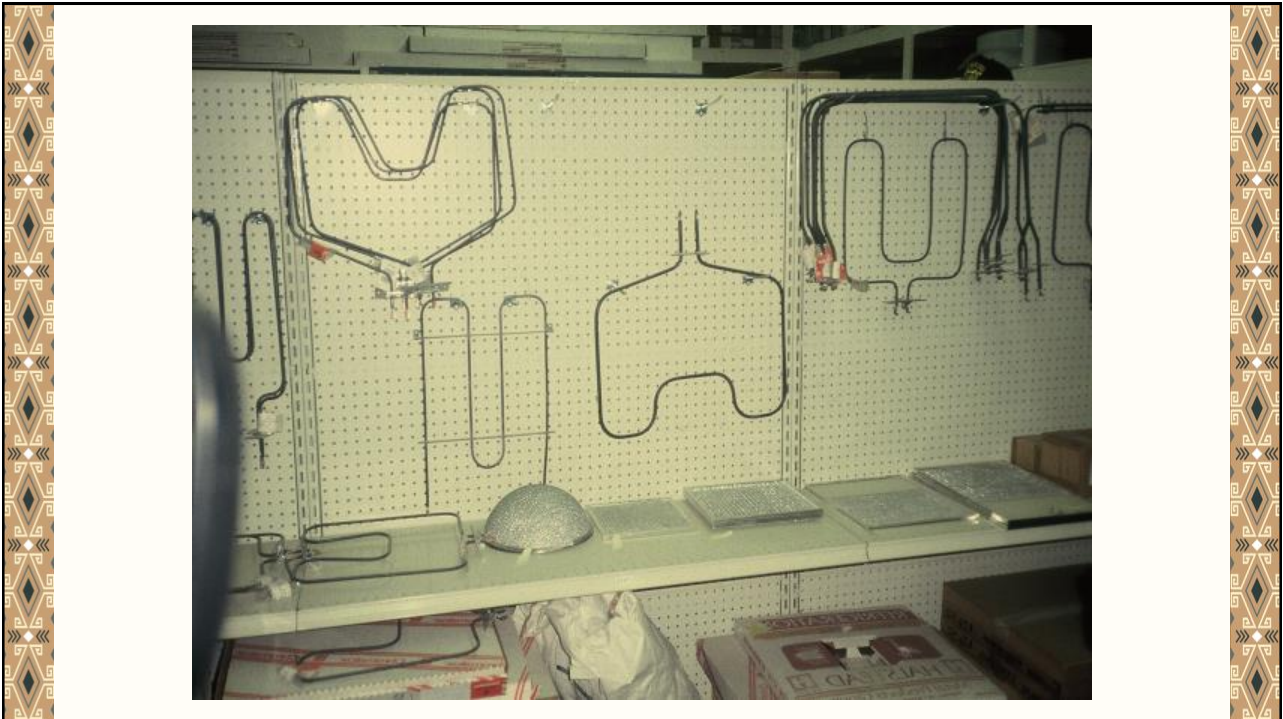
Authorized Federal Supply Schedule Contract Number: **GS-06F-0080M**

FSC Group 51V, Hardware Superstore
 Special Item Number (SIN) 105-002
 Hardware Store for Catalog Service

DISTRIBUTION SYSTEM FOR KEEPING TRACK OF TOOLS and EQUIPMENT









MAINTENANCE VEHICLES

How to Recognize an Agency Vehicle

WHY are agency vehicles so popular?

The reason seems to be that they have some of the following special features which are not found in private vehicles:

- 1) They travel faster in all gears, especially reverse.
- 2) They can accelerate at a phenomenal rate.
- 3) They enjoy a much shorter braking distance.
- 4) They have a much tighter turning radius.
- 5) They can take "bumps" at twice the speed of private vehicles.
- 6) Oil and tire pressures, battery and water levels do not need to be checked nearly so often as ordinary vehicles.
- 7) The floor is shaped just like an ashtray.
- 8) They do not have to be garaged at night .
- 9) They can be driven up to 100 miles with the oil warning light flashing.
- 10) They need cleaning less often, especially inside.
- 11) Their suspension is reinforced to allow concrete slabs and other heavy building materials to be carried.
- 12) They are adapted to allow reverse to be engaged while they car is still moving forward.
- 13) The tire walls are designated for bumping into and over curbs.
- 14) Unusual and alarming engine noises are easily eliminated by the adjustment of the radio volume control.
- 15) No security is needed. They may be left anywhere, unlocked, with the keys in the ignition.

Daily Equipment Report

Truck No. _____ Date _____

Mileage Start: _____

Mileage Stop: _____

Operator's Name: _____

Time In: _____

Time Out: _____

Check Oil:	
Check Fuel:	
Check Light:	
Check Turn Signals	
Check Tires:	
Check Body for Damage:	
Check Windshield Wipers:	
Check Water in Radiator:	
Fuel Added / Gals _____	

*****Keep Truck Cab Clean *****

Remarks
