



Mechanical System Inspection/Clean & Tune

Agency: [ ]BVCAP [ ]CAPLSC [ ]CAPMN [ ]CNCAP [ ]HFHO [ ]NENCAP [ ]NWCAP [ ]SENCA

Inspector Name: \_\_\_\_\_ Date: \_\_\_\_\_ Job Number: \_\_\_\_\_

Client Name & Address: \_\_\_\_\_ City: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Ownership: [ ]Renter [ ]Owner Building Type: [ ]Frame [ ]Mobile [ ]Multifamily Fuel Type: Heating: \_\_\_\_\_ Water Heating: \_\_\_\_\_ Heating System Type: [ ]Forced Air [ ]Gravity [ ]Boiler [ ]Vented [ ]Un-vented [ ]Wall [ ]Floor [ ]Heat Pump Cooling System Type: [ ]Central Air [ ]Window [ ]Heat Pump [ ]None [ ]A Coil [ ]Sloped Coil Water Heating Type: [ ]Tank [ ]Instantaneous [ ]Heat Pump

INSPECTION/EVALUATION REQUIREMENTS

- Combustion Units Only
[ ] Leakage testing of piping and controls
[ ] Test heat exchanger for cracks and openings
[ ] Inspect venting for pitch, size, blockage, corrosion
[ ] Inspect heat exchanger for excessive corrosion
[ ] Inspect burners and crossovers for blockage
[ ] Determine pilot is burning properly
[ ] Determine main burner ignition is satisfactory
[ ] Test pilot safety devices
[ ] Visually determine gas is burning properly
[ ] If equipped, check main burner at low modulator
[ ] Test for spillage at draft hood

- Boilers Only (To be completed by a qualified technician)
[ ] Smoke spot tests
[ ] Net stack temps (5.3003.2e)
[ ] Carbon dioxide and oxygen (5.3003.2f)
[ ] Excess air (5.3003.2g)
[ ] CO (5.3003.2h)
[ ] Technician will provide printout for 5.3003.2c, 5.3003.2e, 5.3003.2f, 5.3003.2g and 5.3003.2h
[ ] Inspect for water or combustion product leaks (if applicable)
[ ] Determine water pumps are operational
[ ] Test low water cutoff, feed control, etc.
[ ] Determine the controls are operational

- All Heating Units (including Electric)
[ ] Check fan and belt condition
[ ] Inspect for exposed wiring and disconnect switch
[ ] Check thermostat operation
[ ] Check filter, filter rack and cover
[ ] Check limit and fan control
[ ] Install sticker (all repairs and Contractor Inspections)

- Boilers Only (To be completed by a qualified technician)
[ ] Recorded data plate information
[ ] Correct nozzle sizes
[ ] Fuel pressure readings
[ ] Steady state efficiency (5.3003.2c)

- Furnaces and Console Heaters
[ ] Determine the fan control is operational

- Water Heaters
[ ] Inspect for water or combustion product leaks (if applicable)
[ ] Determine unit has pilot access door & draft hood (if applicable)
- Air Conditioners
[ ] Inspect central air conditioner coils inside and out
[ ] Not accessible
[ ] Inspect wiring
[ ] Inspect pipe insulation

FORCED AIR SYSTEM AIR FLOW EVALUATION - SWS 5.3003.3

Table with 5 columns: Yes, No, N/A, Specification, Notes. Rows include: External static pressure, Pressure drop across coiling coils, Pressure drop across filter, Air flow measured at each register, Supply wet bulb temperature, Supply dry bulb temperature, Return wet bulb temperature, Return dry bulb temperature, Temperature rise between supply & return.

FORCED AIR SYSTEM ELECTRICAL SERVICE EVALUATION - SWS 5.3003.4

Table with 5 columns: Yes, No, N/A, Specification, Notes. Rows include: Polarity of equipment tested/corrected, Voltage/amperage in accordance with mfg. specs, Voltage drop in accordance with mfg. specs/range, Grounding conforms with NFPA 70 National Electrical Code, Blower amperage will not exceed mfg. full load amperage, Compressor amperage will not exceed mfg. full load amperage, Blower compartment safety switch operation verified, Heat pump emergency heat circuit function verified.

REFRIGERANT LINE EVALUATION - SWS 5.3003.5

Table with 5 columns: Yes, No, N/A, Specification, Notes. Rows include: Insulated to a minimum R-4, If exposed to sunlight, protected from UV degradation, Sized to meet manufacturer specifications, Installed without kinks, crimps, or excessive bends, Appropriately routed, supported and secured to prevent damage.

**CLEAN AND TUNE REQUIREMENTS**

**All Units**

- Lubricate all moving parts
- Clean and vacuum the return air and cabinet and filter rack
- Calibrate and adjust the thermostat, inspect wiring
- Clean or replace filter
- Adjust the conditioned airflow, high limit, fan control, fan on/fan off and temperature rise
- Adjust the belt tension or replace belt (if needed)

- Remove and clean the blower
- Check blower capacitor, fan relay and or contactts
- Clean air conditioner coil  Not Accessible

**All Units**

- Seal thermostat wire penetration in frame homes
- Install sticker (all repairs and Contractor Inspections)

**Combustion Units**

- Clean flame sensor
- Clean and test heat exchanger – except boilers
- Check and adjust burners
- Clean the exhaust port and draft hood

**Electric Units**

- Repair or replace damaged wiring
- Test heating elements and sequencers

**CARBON MONOXIDE TESTING AND ADJUSTMENT**

| Test and adjust each chamber for carbon monoxide |              |               |
|--|--------------|---------------|
|  | Pre-cleaning | Post-cleaning |
| Chamber 1  | PPM          | PPM           |
| Chamber 2  | PPM          | PPM           |
| Chamber 3  | PPM          | PPM           |
| Chamber 4  | PPM          | PPM           |

**HVAC CLIENT EDUCATION**

| Yes                      | No                       | N/A                      | Specification   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Basic operation of the equipment has been explained to the client (i.e. efficiency measures, design considerations differences from previous systems)   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proper operation and programming of the system controls for proper operation has been explained   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Indoor and outdoor shut-offs have been demonstrated   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location of combustion air inlets have been identified for the client as per NFPA 31, 54 & 58   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed of the importance of not blocking combustion air inlets  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed of the importance of cleaning dust and debris from return air grilles  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed of proper placement of interior furnishings with respect to registers  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed of the negative consequences of closing registers  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed of the importance of leaving interior doors open as much as possible   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed of the importance of proper filter selection and how to change the filter  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed of the importance of keeping the outside units clear of debris, vegetation, decks and other blockages  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed of the importance of routine professional equipment maintenance  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed that there will be no air bypass around the new filter and that the new forced air system will have a minimum MERV 6 filtration  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed of situations when a HVAC contractor should be contacted <ul style="list-style-type: none"> <li>◆ Fuel Odors</li> <li>◆ Water draining from secondary drain line</li> <li>◆ Emergency heat indicator always on for a heat pump</li> <li>◆ System blowing cold air during heating season and vice versa</li> <li>◆ Icing of evaporator coils during heat pump cooling mode</li> <li>◆ Heat pump outside unit never defrosts</li> <li>◆ Unusual noises</li> <li>◆ Unusual odors</li> </ul> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been informed that carbon monoxide(s) alarm has been installed and the importance of maintenance   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client has been provided with relevant manuals and warranties   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The labor warranty has been explained to the client   |

**SIGNATURES**

I certify that the work performed meets the requirements of the Nebraska Weatherization Assistance Program Installation Measures and Work Standards.

Agency or Company Name \_\_\_\_\_

**Sign Here**

Signature Heating/Plumbing Technician \_\_\_\_\_

Date \_\_\_\_\_