

HEATING & COOLING SYSTEMS AND VENTILATION

FURNACE AND ITS COMPONENTS

- Type: A 1993 forced air mid. Efficiency furnace
- Fuel: Natural gas
- Conditions:

1- The bolt on the filter section's cover, which caused the safety switch to not let the furnace to operate, was missing.



2- There was white residue inside the furnace, after removing its cover.



3- There were signs of rust for the visible portions of the heat exchanger.

4- Filter was 14*25*1 inch with no spare, and it could not easily be removed and changed. The existing filter was clogged and un-operational.



5- Furnace flame was bluish-yellow color.

6- No sign of grounding wire for gas line was observed.

- *Recommendation:*

1- Do maintenance on the furnace by a licensed contractor (install a clean filter, install a T elbow section for the furnace-hot water heater flue, install the missing bolt, adjust the air-gas ratio, and).

2- Be aware that; the furnace may lose its operation without warning, due to its age and condition.

3- Clean the air-filter regularly, or exchange it with a clean one.

VENTILATION

- *Recommendation:* Change the dented gas-dryer's vent with undamaged circular solid metal vent.

- Provide ventilation for the mechanical room, which lack of it had caused rust on fire-stop for the exhaust flue line.



FLUES AND CHIMNEYS

- Condition:
 - 1- Furnace exhaust was done by C vent in-conjunction with gas hot water heater.
 - 2- The C vent was connected to a B bent from the ceiling which penetrated over the roof.
- *Recommendation:* Install a T elbow section for the furnace-hot water heater flue connection, in-order to eliminate the white residue on furnace.

THERMOSTATS AND OTHER OPERATING CONTROLS

- Condition: Thermostat operated properly.

HEATING AND COOLING DISTRIBUTION SYSTEM

- Type: By ducts from the crawl space

SUPPLIED HEAT IN EACH HABITABLE ROOM.

- *Recommendations:* Keep the warm air outlets clean for better efficiency and performance of the furnace.