

STATE OF WISCONSIN  
**Department of Safety and Professional Services**  
Division of Industry Services

## OFFICIAL POSITION STATEMENT

### Plastic Venting for Gas-Fired Appliances

*Wisconsin Uniform Dwelling Code — SPS 320–325*

Under the Wisconsin Uniform Dwelling Code (SPS 320–325), plastic venting materials for gas appliances are permitted when they are listed and installed in accordance with the appliance manufacturer’s instructions and the applicable standard.

#### KEY PRINCIPLE

Wisconsin follows NFPA 54 (National Fuel Gas Code) logic for venting materials as found in **SPS 323.04**, which guides the installation and maintenance of gas-fueled appliances, requiring that they comply with the appliance listing.

- The manufacturer’s installation instructions control the acceptable venting materials.
- If the manufacturer allows ASTM D1785 / ASTM D2665 PVC or similar plastic pipe, it may be used.
- **Please Note:** Most **Category IV condensing furnaces** have very low flue gas temperatures (often around 100° – 140°F). Because of this, manufacturers have tested their appliances with plastic vent systems and included them in their listing. DSPS Acknowledges that ASTM D1785 and ASTM D2665 are not listed for conveyance of flue gas, however, if an appliance manufacturer has conducted internal testing of the vent system as part of the appliance listing and has certified ASTM D1785/ASTM D2665 as an approved installation method for conveyance of flue gas and publishes in their installation manual it is allowable as per **SPS 323.04(1)(b)**

#### LISTING REQUIREMENT

The important requirement is that the material must be:

- Listed
- Installed per the *appliance* manufacturer’s instructions — not the vent pipe manufacturer’s ratings

Typical standards referenced include:

- ASTM D1785 – Schedule 40 PVC pressure pipe
- ASTM D2665 – PVC DWV pipe and fittings
- ASTM F441 / F442 – CPVC pipe standards

These materials are commonly permitted for Category IV condensing furnaces where flue gas temperatures are low.

## ROLE OF UL 1738

UL 1738 is a vent system standard specifically for gas appliance venting systems.

However, under the UDC:

- UL 1738 is only required if the manufacturer specifies it.
- If the appliance manufacturer lists PVC or CPVC pipe in their installation manual, it can be used even though the pipe itself is not listed to UL 1738.

## PRACTICAL WISCONSIN INTERPRETATION

For UDC furnace installations:

- Follow the manufacturer's venting instructions first.
- Use materials the manufacturer specifically lists as acceptable.
- Install the vent per the ASTM standard and manufacturer instructions.
- UL 1738 vent systems are only required when the manufacturer calls for them.

## REPLACEMENT OF EXISTING SYSTEM COMPONENTS

For UDC appliance installations:

A one-for-one replacement of an existing appliance does not require the venting material to be replaced unless:

- Use materials the replacement appliance manufacturer specifically lists as acceptable.
- UL 1738 vent systems are only required when the manufacturer calls for them.
- Venting materials are required to be replaced *only* when the appliance manufacturer's installation venting instructions require a different type of venting material.

*This position statement is issued by DSPS for guidance under the Wisconsin Uniform Dwelling Code (UDC). For questions, contact the Division of Industry Services.*