

ACTION PLAN

OMA Chimney Venting Guidelines

By: John E. Batey, PE, Technical Director
(203)459-0353

PROBLEM: Chimney venting remains the most common method for removing combustion exhaust gases from oil heated homes. The trend toward higher efficiency appliances over the past three decades has produced lower exhaust gas temperatures, reduced draft, and condensation of flue gases in some installations. This is exacerbated by the trend toward lower fuel firing rates which tends to cool the flue gases below the point at which moisture condenses. Chimney damage can occur that can create a safety hazard in extreme cases as experienced by higher efficiency gas appliances. Chimney venting restrictions have been imposed on oil powered equipment by the National Fire Protection Association in the past. OMA members have been asked by oil heat users to offer guidance for safe and efficient venting of oil powered appliances. Past venting research by Brookhaven National Laboratory and can assist oilheat equipment manufacturers but more research is needed.

OBJECTIVE: A low-cost Phase I project will assemble all past research and develop the technical basis for establishing initial guidelines for the design, installation and operation of chimney venting systems that are used with oil powered heating appliances. Additional research needs will be identified as needed to support final venting guidelines during Phase II. Action is needed now to avoid future vent-related limitations that may prevent the installation of new oilheat appliances.

ACTION NEEDED: Recommended activities include the following:

- Review the concerns of various oilheat associations, fuel marketers, and oil heat service organizations (NAOHSM) regarding chimney venting of oilheat equipment.
- Assemble and study past reports and recommendations including the work at Brookhaven National Lab, the gas associations, and the Canadian researchers over the past 10 to 20 years.
- Develop a preliminary list of oilheat vent guidelines with the assistance of OMA members that includes minimum flue temperature, the impact of reduced firing rates, chimney design features, re-lining methods, draft sensors and other chimney design, installation, and other performance features.
- Re-activate computer vent modeling as needed to assist with this work.
- Publish these DRAFT consensus guidelines and solicit the input of equipment manufacturers, code officials, and other interested parties.
- Present these reviewed guidelines to the NFPA-31 Technical Committee and other interested groups.

Funding and support for this important project will be requested from NORA, PMAA, NEFI, NAOSH, oilheat equipment manufacturers, and state oilheat associations. This is a follow-up to a past collaboration with state oilheat associations organized by OMA to address proposed venting restrictions on oilheat equipment imposed by the National Fire Protection Association.

NEXT STEP: OMA will solicit the support of oilheat associations and equipment manufacturers to develop new guidelines that can be used by all equipment manufacturers and prevent future limitations on the installation of new oilheat equipment. Several state oilheat associations have addressed this chimney venting issue in the past which has national impact. Technical and financial support was received to revise restrictions in the venting section of NFPA-31- Installation of oil burning equipment. A similar approach is proposed here.