

DEPARTMENT OF PUBLIC SAFETY AND CORRECTIONS

Public Safety Services



M. J. "MIKE FOSTER, Jr. GOVERNOR

V.J. BELLA STATE FIRE MARSHAL

INTERPRETIVE MEMORANDUM 2002-09

To: Licensed Architects

Licensed Engineers

Felicia Cooper, Administrator - Inspections

Stephen Gogreve, Manager

Boyd Petty, Manager

Pat Day-Rainey, Supervisor of Health Care Inspections

Plan Review Staff

From: Don Zeringue, Chief Architect

Jean Carter, Architect Supervisor Fidel Fremin, Architect Supervisor Cynthia Obier, Architect Supervisor Henry Reed, Architect Supervisor

Approved: Mark Gates,

Deputy Assistant Secretary

Date: May 8, 2002

Re: Vinyl Insulation/Top of Fire Barrier Wall Termination

This memo is intended to address the typical top of fire barrier wall condition occurring in buildings having metal roofs with vinyl faced insulation suspended from roof purlins and covering the underside of the roof deck. This continuous vinyl insulation is required to maintain the roof's warranty by preventing condensation formation at the roofing material's bottom surface. This office is not aware of a listed "head-of-wall" joint assembly appropriate to this condition.

On a case-by-case basis, this office will evaluate various head of wall assemblies as being acceptable. NFPA 221 "Standard for Fire Walls and Fire Barrier Walls," states that,

"A fire barrier wall shall extend from the foundation or floor below to the underside of the roof or floor deck above. Any voids or gaps created by the meeting of the wall and floor below and the underside of the roof or floor deck above shall be filled with an approved material with fire resistance rating at least equal to that of the fire wall."

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This office hereby determines that the vinyl-faced insulation is an integral part of the roof assembly. A fire barrier wall may terminate at the underside of vinyl insulation subject to the following conditions:

- 1. The fire barrier wall shall compress the vinyl insulation to within one inch of the metal roof deck leaving no voids or gaps.
- 2. An intumescent material having adhesive characteristics common to both the fire barrier wall material and vinyl insulation shall be applied and maintained to the appropriate manufacturer's recommended thickness and depth.
- 3. In lieu of a listed head of wall assembly, this office has no alternative except to evaluate proposed designs on a case-by-case basis. All previously accepted head of wall conditions of this nature shall be considered acceptable by this office.

DZ:mld