



Consulting

Reply to: Deerfield Beach

April 17, 2007

DCA07-DEC-080

Amendment

FILING AND ACKNOWLEDGEMENT
 FILED, on this date, with the designated
 Clerk, receipt of which is hereby
 acknowledged.

Paula P. Ford
 Commission Clerk

Art Kamm, P.E. - LEED®
 Brady L. Brown, P.E. - LEED®
 Rick Gonzalez
 Bob Connors, P.E.
 Lon T. Carter, P.E.
 Mike Pelle, P.E.
 Scott Meriwether
 Rick Rao, P.E.
 Nevena Parsons, P.E. - LEED®
 Enrique Uribe, P.E.
 Gordon Myers, P.E. - LEED®

Paula P. Ford 4/16/06
 Date

Florida Building Commission
 c/o Paula Ford, Clerk of the Commission
 Department of Community Affairs
 2555 Shumard Oak Blvd.
 Tallahassee, Florida 32399

RE: PETITION FOR DECLARATORY STATEMENT

Dear Commissioners:

Kamm Consulting Inc. is designing a hospitality project, the Hyatt Place, in Lake Mary, Florida, where the desired intent is to exhaust the guest unit bathrooms via an exhaust riser with a central exhaust fan on top that runs continuously.

The typical bathroom design is based on a 50 CFM ceiling fan connected by a 4" round, metal duct to a 22" metal sub-duct inside the riser, in compliance with FMC 2004 sec. 607.5.5.1, exception 1.1. However, such design does not comply with exception 2.1 of the same section, which is restricted to group B occupancies only. Therefore a smoke damper is required in order to comply with the requirements of sec. 607.5.5.1 for penetrations of shaft enclosures.

To expand the issue, residential high-rise design typically faces additional exhaust requirements for dryers and, occasionally, residential range hoods. To comply with the requirements of sec. 607.5.5.1, smoke dampers will be required in these instances of dryer or range hood duct penetrations into the shaft enclosures.

1407 West Newport Center Drive, Deerfield Beach, Florida 33442 Phone 954.949.2200 Fax 954.949.2201
www.kammconsulting.com

Branch Locations:

3808 Gunn Highway - Suite C
 Tampa, Florida 33618
 813.265.9550
 813.963.3187 FAX

6950 Belfort Oaks Place
 Jacksonville, Florida 32224
 904.285.2009
 904.285.3009 FAX

1408 Orange Avenue
 Fort Pierce, Florida 34950
 772.595.1744
 FAX 772.595.1745

Historically, it has been an industry-wide practice in these instances to provide exhaust at the top of the building via a metal riser enclosed in a fire-rated shaft and a continuously running, central fan. Building owners, construction and design professionals are being subjected to an undue burden in complying with the requirements of sec. 607.5.5.1 for smoke dampers. Kamm Consulting Inc. believes that this Code section could be addressed to everybody's benefit by removing the restriction to only "group B" occupancies for smoke dampers in exception 2.1.

To support the argument we have the following questions:

1. Would the advantages of automatic sprinkler protection be equally applicable to the described group R occupancies, which the 2004 FM Code recognizes for group B occupancies?
2. Would the omission of smoke dampers be acceptable for the described group R occupancies, considering that the 2003 IMC Commentary recognizes that "smoke dampers in steel exhaust sub-ducts extended at least 22 inches vertically in the exhaust shafts would not significantly increase safety to the building occupants" when there is a continuous upward outflow to the outside?
3. Would the omission of smoke dampers be acceptable for the described group R occupancies, considering that for smoke barriers NFPA 90-A, 2002 ed., recognizes the following exceptions, which are applicable in these instances?
 - a. #5.3.5.1.3 Smoke dampers shall not be required where the air inlet or outlet openings in ducts are limited to a single smoke compartment.
 - b. #5.3.5.1.4 Smoke dampers shall not be required in ducts where the air continues to move and the air-handling system installed is arranged to prevent recirculation of exhaust or return air under fire emergency conditions.
4. Would such smoke dampers, as required, lead to decreased life safety considering their serviceability and maintainability in practical reality? Typically, such smoke dampers would be located above hard ceilings, in congested areas where accessibility is limited or, at times, non-existent.

In summary, the only code-compliant solution for the above design instances would be to exhaust the toilets, dryers, or range hoods horizontally, to the side exterior of the building in order to eliminate the smoke damper requirement. However, an exterior, side-discharge solution may create unsolvable, conflictual situations with other Code

1407 West Newport Center Drive, Deerfield Beach, Florida 33442 Phone 954.949.2200 Fax 954.949.2201
www.kammconsulting.com

Branch Locations:

3808 Gunn Highway – Suite C
Tampa, Florida 33618
813.265.9550
813.963.3187 FAX

6950 Belfort Oaks Place
Jacksonville, Florida 32224
904.285.2009
904.285.3009 FAX

1408 Orange Avenue
Fort Pierce, Florida 34950
772.595.1744
FAX 772.595.1745

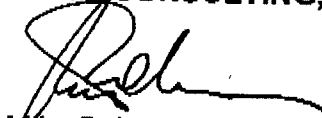
requirements such as the outdoor discharge proximity to building openings and the prohibition of fire/smoke dampers in dryer ducts.

Expanding exception 2.1 for smoke dampers to include group R occupancies as well, or their omission in the described high-rise design instances as an acceptable "alternate method", will recognize a time-proven practice that served the industry well while preserving the requirements for life safety.

Kamm Consulting Inc. would be grateful if you would issue a formal interpretation of the above questions as they relate to the Hyatt Place so that the project's design is compliant with the Florida Building Code.

Thank you for your timely response.

Respectfully,
KAMM CONSULTING, INC.



Mike Pella, P.E.
Director of Mechanical Engineering

MP:pkw

1407 West Newport Center Drive, Deerfield Beach, Florida 33442 Phone 954.949.2200 Fax 954.949.2201
www.kammconsulting.com

Branch Locations:

3808 Gunn Highway – Suite C
Tampa, Florida 33618
813.265.9550
813.963.3187 FAX

6950 Belfort Oaks Place
Jacksonville, Florida 32224
904.285.2009
904.285.3009 FAX

1408 Orange Avenue
Fort Pierce, Florida 34950
772.595.1744
FAX 772.595.1745



Consulting

Reply to: Deerfield Beach

DCAD7-DEC-080
 FILING AND ACKNOWLEDGEMENT
 FILED on this date, with the designated
 Clerk, receipt of which is hereby
 acknowledged.

April 17, 2007

Paula P. Ford
 Paula P. Ford
 Commission Clerk

Date

Art Kamm, P.E. - LEED®
 Bradly L. Brown, P.E. - LEED®
 Rick Gonzalez
 Bob Connors, P.E.
 Lon T. Carter, P.E.
 Mike Pella, P.E.
 Scott Meriwether
 Rick Rao, P.E.
 Nevena Parsons, P.E. - LEED®
 Enrique Uribe, P.E.
 Gordon Myers, P.E. - LEED®

Florida Building Commission
 c/o Paula Ford, Clerk of the Commission
 Department of Community Affairs
 2555 Shumard Oak Blvd.
 Tallahassee, Florida 32399

RE: PETITION FOR DECLARATORY STATEMENT

Dear Commissioners:

Kamm Consulting Inc. is designing a hospitality project, the Hyatt Place, in Lake Mary, Florida, where the desired intent is to exhaust the guest unit bathrooms via an exhaust riser with a central exhaust fan on top that runs continuously.

The typical bathroom design is based on a 50 CFM ceiling fan connected by a 4" round, metal duct to a 22" metal sub-duct inside the riser, in compliance with FMC 2004 sec. 607.5.5.1, exception 1.1. However, such design does not comply with exception 2.1 of the same section, which is restricted to group B occupancies only. Therefore a smoke damper is required in order to comply with the requirements of sec. 607.5.5.1 for penetrations of shaft enclosures.

To expand the issue, residential high-rise design typically faces additional exhaust requirements for dryers and, occasionally, residential range hoods. To comply with the requirements of sec. 607.5.5.1, smoke dampers will be required in these instances of dryer or range hood duct penetrations into the shaft enclosures.

1407 West Newport Center Drive, Deerfield Beach, Florida 33442 Phone 954.949.2200 Fax 954.949.2201
www.kammconsulting.com

3808 Gunn Highway - Suite C
 Tampa, Florida 33618
 813.265.9550
 813.963.3187 FAX

Branch Locations:
 6950 Belfort Oaks Place
 Jacksonville, Florida 32224
 904.285.2009
 904.285.3009 FAX

1408 Orange Avenue
 Fort Pierce, Florida 34950
 772.595.1744
 FAX 772.595.1745

In summary, the only solution code compliant for such design instances would be to exhaust the toilets, dryers, or range hoods horizontally, to the side exterior of the building.

Historically, it has been an industry-wide practice in these instances to provide exhaust at the top of the building via a metal riser enclosed in a fire-rated shaft and a continuously running, central fan. Building owners, construction and design professionals are being subjected to an undue burden in complying with the requirements of sec. 607.5.5.1 for smoke dampers. Kamm Consulting Inc. believes that this Code section could be addressed to everybody's benefit by removing the restriction to only "group B" occupancies for smoke dampers in exception 2.1.

The supporting arguments are as follows:

1. The 2004 FM Code recognizes the advantages of automatic sprinkler protection, which are equally applicable to group R occupancies.
2. The 2003 IMC Commentary recognizes that "smoke dampers in steel exhaust sub-ducts extended at least 22 inches vertically in the exhaust shafts would not significantly increase safety to the building occupants", when there is a continuous upward outflow to the outside.
3. For smoke barriers, NFPA 90-A, 2002 ed., recognizes the following exceptions, which are applicable in these described instances:
 - a. #5.3.5.1.3 Smoke dampers shall not be required where the air inlet or outlet openings in ducts are limited to a single smoke compartment.
 - b. #5.3.5.1.4 Smoke dampers shall not be required in ducts where the air continues to move and the air-handling system installed is arranged to prevent recirculation of exhaust or return air under fire emergency conditions.
4. Such smoke dampers, if required, would pose practicality issues not only in terms of manufacturing considering their small size, but in terms of serviceability and maintainability as well, which will lead to decreased life safety.
5. Unfeasible compliance for smoke dampers leading to an exterior side discharge solution may create unsolvable, conflictual situations with other Code requirements such as the outdoor discharge proximity to building openings and the prohibition of fire/smoke dampers in dryer ducts.

1407 West Newport Center Drive, Deerfield Beach, Florida 33442 Phone 954.949.2200 Fax 954.949.2201
www.kammconsulting.com

Branch Locations:

6950 Belfort Oaks Place
Jacksonville, Florida 32224
904.285.2009
904.285.3009 FAX

1408 Orange Avenue
Fort Pierce, Florida 34950
772.595.1744
FAX 772.595.1745

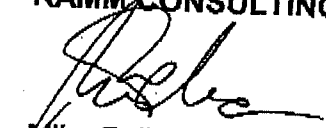
3808 Gunn Highway - Suite C
Tampa, Florida 33618
813.265.9550
813.963.3187 FAX

Expanding exception 2.1 for smoke dampers to include group R occupancies as well, or their omission in the described high-rise design instances as an acceptable "alternate method", will recognize a time-proven practice that served the industry well while preserving life safety requirements.

Kamm Consulting Inc. would be grateful if you would issue a formal interpretation of the above issues as they relate to the Hyatt Place so that the project's design is compliant with the Florida Building Code.

Thank you for your timely response.

Respectfully,
KAMM CONSULTING, INC.


Mike Pella, P.E.
Director of Mechanical Engineering

MP:pkw

1407 West Newport Center Drive, Deerfield Beach, Florida 33442 Phone 954.949.2200 Fax 954.949.2201
www.kammconsulting.com

3808 Gunn Highway – Suite C
Tampa, Florida 33618
813.265.9550
813.963.3187 FAX

Branch Locations:
6950 Belfort Oaks Place
Jacksonville, Florida 32224
904.285.2009
904.285.3009 FAX

1408 Orange Avenue
Fort Pierce, Florida 34950
772.595.1744
FAX 772.595.1745