1. Roll Call and Introductions

2. Discussion and voting on Section 909 of IFC/DBC-IFC
   a. F23: DBC-IFC 909.15.3.3
   b. F24: DBC-IFC 909.15.3.4
   c. (P131) (F112): DBC-IFC 909.15
   d. F17: DBC-IFC 909.10.1, Item 8
   e. (P170): DBC-IFC 909.10.2
   f. (P97) (F88): DBC-IFC 909.15.3-.5 (not heard together with those items above)

3. Discussion and voting on Appendix N of IFC
   a. (P158) (F135): IFC N103.6
   b. (P159) (F136): IFC N103.6.1.1
   c. (P160) (F137): IFC N103.6.1.1
   d. (P161) (F138): IFC N103.6.1.2
   e. (P117) (F107): IFC N103.1.1.4
   f. (P118) (F108): IFC N103.6.1.2
   g. (P119) (F109): IFC N103.6.2.3

Please note that any items that we do not get to in this hearing will be automatically transferred to the next scheduled hearing date and will be the first items on the agenda for that hearing.

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Proposal # F23, F24, P131, F17, P170
All regarding Make Up Air Provisions, pulled from last hearing.

Proposal # F17
Public Testimony in Support: None
Public Testimony in Opposition: None
Original Motion: AS As Submitted – 2nd
Questions from the Committee to Proponent:
Committee Discussion:
Concern is the added criteria of demonstrating in life safety mode the 40%. We are just trying to maintain pressurization and containment, now we are adding another requirement on top of that.

   Always a criterion to show smoke movement. This is a compromise on quantifying some sort of measurable metric that allows us to see movement of air with 2 air changes. 2 air changes could guarantee some motion. Committee felt if you were less than 2 there was no way to get to 4 air changes with all the doors open.

Denver Fire has seen building that their fan doesn’t even have the capacity to pull 1 air change. For the 40%, that is with 1 door open. You might not get to 80% with just opening doors in some buildings. This may be introducing make up air.

   There may be issues where stairways and hoist way leakage may not be adequate and will not get you there, but this will be rare.

Hesitation with the 40% in a true containment mode we should be more concerned about pressurization.
Concerns about adding another criterion
   Criteria has always been there, but it’s subjective, this proposal designed to get us away from subjectivity and place an actual metric that we can measure.
Is the 80% to match the IBC?
   Yes, Denver Fire wanted higher, but this was a compromise to start out with.

Final Motion: AS
Final Vote: 7-1 Passes As Submitted

Additional staff or committee comments for the record:

Proposal # F23 (Revisions Received) (Previously Tabled)
Was Modified at the last hearing, further modified and brought back today.
Public Testimony in Support: None
Public Testimony in Opposition: None
Original Motion: As Modified
Reason: Stand on reason stmt.
#5 addresses engineers that are not within direct community experience have the opportunity to take care of this and provide documentation to fire department.
Committee Discussion:
Struck out #1 to remove the assumption of makeup air that’s why, moved everything up and added #5.

Final Motion: As Modified
Final Vote: AM 9-0
Additional staff or committee comments for the record:
Proposal # F24 (Previously Tabled)
Public Testimony in Support: None
Public Testimony in Opposition: None
Original Motion: As-Submitted (AS)
Reason: Stand on Proponents reason statement.
Questions from the Committee to Proponent:
Committee Discussion:
Does this carry a level of risk?
   Yes, creating a mixture of systems that is in between containment method and an exhaust method. ASHRAE would say don’t provide make up air. If you are in exhaust mode, make up air should be brought in low and slow.
Acknowledging this method gives us an opportunity to fix these systems. Still putting fresh air in to the fire zone, but slow enough rate it’s not affecting the fire.
Previous proposal F23 gives you the design criteria.
When Fire Department sees this there should be something else to go along with it not just opening that register, there’s a lot more that goes with it.
Final Motion: As Submitted
Final Vote: AS 8-0
Additional staff or committee comments for the record:

Proposal # P131 (Previously Tabled)
Public Testimony in Support: None
Public Testimony in Opposition: None
Original Motion: Disapprove (D)
Reason: We’ve already dealt with this in the other approved proposals.
This moves IBC Post Purge Salvage 403 in to 909 to allow a life safety system that is dealing with pressurization and exhausting the floors then there would be an easy button to sequence the system as needed to provide make up or whatever is needed on a floor by floor basis.
Committee Discussion:
Concern that approving this will conflict with what we already did with the 80% in F17. This will make the code confusing.
   This just allows different things to happen in order to get to the 80%, this has a manual component vs the full automated we previously approved.
   Fire Fighter union is opposed to manual.
This is a big change, we have previously agreed to take smaller steps in to this.
This is how it’s done outside of Denver currently, eliminates the competing variables pressure relationship, door opening forces, and exhaust rates.
   That’s not going to go away with the previous amendment.
Final Motion: Disapproval
Final Vote: D 8-1
Additional staff or committee comments for the record:

Proposal # P170
Public Testimony in Support: Trying to get in the record stair way doors may be opened as a source of make up air, because of being held to 5 air changes. Can’t happen without make up air. Most of our buildings we were able to get close to 5 air changes with stair way doors and dynamic control of the exhaust fans. Make up air provision we propose using stairway doors to provide additional make up air.
Public Testimony in Opposition: None
Questions from the Committee to Proponent:
1. 80% was ability to open all doors, nice to have a place to show that, does this clarify it?
   a. We describe control of the exhaust fans to get there.
2. Seems to show 2 options, but what about all the other options? Shouldn’t we list all available options, including leaving supply on, opening hoist way doors, opening outside doors to terraces or courts.
   a. Possibly.

Original Motion: A/S with Intent to Modify (ASM)
Modification: Move to section 909.15.3 Design Criteria would be Item #6
Add in specifics: Make Up Air Provisions may include:
   a. Stairway doors on the fire floor may be opened and used as a source of make-up air during smoke exhaust system testing,
   b. Variable frequency drives for smoke exhaust system fans may be controlled in response to duct static pressure settings
   c. Dedicated Make-up air system
   d. Or other methods as documented in the design submittals and approved by the fire code official

Vote on Modification: 8-0
Committee Discussion:
Big help for designers out of town or out of state.

Final Motion: As Modified
Final Vote: 8-0-1
Additional staff or committee comments for the record:
Will need to be cleaned up editorially.

Proposal # P97
To clarify the intended use of the “smoke exhaust” system on a high-rise floor is to create the negative pressure zone of the floor of fire – or known as the zoned smoke control scheme.

Public Testimony in Support: Proponent Testify:
Intent is to clarify zone smoke control method for high rise floor. Add provisions for zone smoke control performance and design criteria. Proposed language clearly states zone smoke control system is used here and all smoke exhaust language is removed. Introduce depressurization step. Reason for removal is to avoid confusion between depressurization in zone of alarm and the distraction of smoke by exhaust fans. In design and construction smoke exhaust is used for process of extracting so occupants can have a longer amount of time before rescue. In original 909.15.3.1 the objectivity is to maintain zone of connective pressure. The proposed section also removes wording for minimum of volume of air from floor.

Public Testimony in Opposition: None

Original Motion: Disapprove (D)
Based on all efforts 3-4 committee hearings and idea of minimally revamping current method. This is a big change.

Questions from the Committee to Proponent: None

Committee Discussion:
Storage rooms, electrical rooms being classified as depressurization, we have seen plan review comments about how is smoke being exhausted from these small rooms and the truth is that is not how the system is designed. Does seem to be some confusion about whether or not these individual rooms may be required to be removing smoke.

Seems like this proposal is trying to do too many things, don’t agree with language in floor depressurization.

Too encompassing new definitions, change in Denver methodology, cost more for design and is more restrictive.

Final Motion: Disapproval
Final Vote: D Passes 7-0
Additional staff or committee comments for the record:

Proposal # P158
Amend opening paragraph to allow for electronic submittal process for shop drawings for smoke control systems.
Public Testimony in Support: None
Public Testimony in Opposition: None
Original Motion: As-Submitted (AS) – 2nd
Committee Discussion:
Think this might be superseded by the administrative chapters of the code.

Shop drawings are completely electronic right now
Currently seeing about 80% electronic to 20% paper documents.

Administratively need to address several areas of the code where this requirement is listed.

Makes sense to have this to align with what Denver is currently doing
Final Motion: As Submitted
Final Vote: AS Passes 8-0
Additional staff or committee comments for the record:

Proposal # P159
Revise section on Firefighters Smoke Control Panel.
Public Testimony in Support: None
Public Testimony in Opposition: None
Original Motion: As-Submitted (AS)
Questions from the Committee to Proponent:
Committee Discussion:
Ducts not active in smoke control mode, dual use shaft where both make up and exhaust air are in same shaft - that piece of duct work should be grey, exhaust and shaft would be red. This is how they are all done now, this just codifies.

Possibly the light section should be moved in to the next section.

This would encompass any damper associated with smoke control element.

Need to add LED’s here so that when one of these fails the LED lights up to show exactly what has failed.

Discussion about further clarification for LED’s being added here.
Ultimately decided to leave as is with modifications.

Modification 1: Item 4 becomes, “Ducts associated with smoke control elements but not active in smoke control mode.”
Vote on Modification: 8-0 Passes

Modification 2: Item 5 becomes “Dampers associated with smoke control elements that serve as containment in smoke mode. - GREY” Item 4 in N103.6.1.2 Renumber and make this #4 (renumber remaining items) “Containment dampers associated with smoke control elements in closed position
Proposal # P160
Relocate the portion that refers to only the garage exhaust fans, create a new paragraph (item 5) since the rest of that paragraph refers to ALL smoke control equipment on the FSCP.

Public Testimony in Support: None
Public Testimony in Opposition: None
Original Motion: As-Submitted (AS)
Committee Discussion:
Looks like a typo in the original code and this just corrects it by splitting in to 2 sentences.

Split to make so it doesn’t only apply to only garage exhaust.

Final Motion: As Submitted
Final Vote: AS 8-0
Additional staff or committee comments for the record:

Proposal # P161
To clarify some confusion in the SCS community as to whether SCS device (fan or damper) should show FAULT and status.

Public Testimony in Support: None
Public Testimony in Opposition: None
Original Motion: As-Submitted (AS); A/S with Intent to Modify (ASM); Disapprove (D)
Questions from the Committee to Proponent:
Committee Discussion:
Regarding Item #6 it’s a live panel, previously turned off switch ability.
Still acceptable to Denver Fire.
Addresses “True Status” at all times.

Think this needs to be in.

Concerns about the implication of power monitoring.
This only says we are monitoring loss of power and fault status.

Modification 1: Remove E & F.
Vote on Modification: 8-0
Modification 2: Change D to say VFD/motor start failure
Vote on Modification: 8-0
Modification 3: N103.6.1.2.2 Do not incorporate these changes. Not needed.
Vote on Modification: 8-0
Final Motion: As Modified 3 modifications
Final Vote: AM 8-0 Passes
Additional staff or committee comments for the record:

Proposal # P117 (Duplicate)

Proposal # P118
Add a requirement that is already in common practice by DFD FPEs regarding LED’s. ED status indicators shall be provided for each component of the smoke control system as follows: 1. Fans operating, dampers open, power on – GREEN
2. Fans off, dampers closed – YELLOW  
3. Fans and dampers fault status – YELLOW  
4. Panel switch not in auto position – RED (and this will create a trouble that goes to central station).  
5. Duct detectors as required in accordance with IFC Section 907.3.1, as amended, shall be identified – YELLOW  
6. Provide lamp test with momentary contact push button(s) to illuminate all LED’s simultaneously.  
7. All status LED’s shall be active all the time.

Public Testimony in Support: None  
Public Testimony in Opposition: None  

Original Motion: As-Submitted (AS)  

Questions from the Committee to Proponent:  
Committee Discussion:  
Red is traditionally a supervisory status.

Modification:  
Remove the section in parenthesis. (and this will create a trouble that goes to central station)  

Vote on Modification: 8-0  
Final Motion: As Modified  
Final Vote: AM 8-0  
Additional staff or committee comments for the record:

Proposal # P119  
The AUTO position should always mean the position commanded by the smoke control programming. When returned to the "AUTO" position while still in alarm mode, the equipment shall remain in the mode demanded by the last manual command, return to the position required by the smoke control programming.

Public Testimony in Support: None  
Public Testimony in Opposition: None  

Original Motion: As-Submitted (AS)  
Questions from the Committee to Proponent:  
Committee Discussion:  
If you have an auto on/off switch, the way its written when in smoke control if you take auto position damper is closed (red or yellow light) and you take it to open, green light comes on, if you move switch back to auto position goes back to auto position.  
This was originally put in to address someone in command center bumped the switch, it has to go back to auto position.  

This corrects the language.  
Final Motion: As Submitted  
Final Vote: AS 8-0  
Additional staff or committee comments for the record: