



# Smoke Skills

**Jerry Tracy** Battalion Commander **FDNY** (ret)





**June 14<sup>th</sup> 2017**

**SHOW  
ME THE  
BODIES  
HOW  
WE LET  
GRENFELL  
HAPPEN**

**PETER APPS**

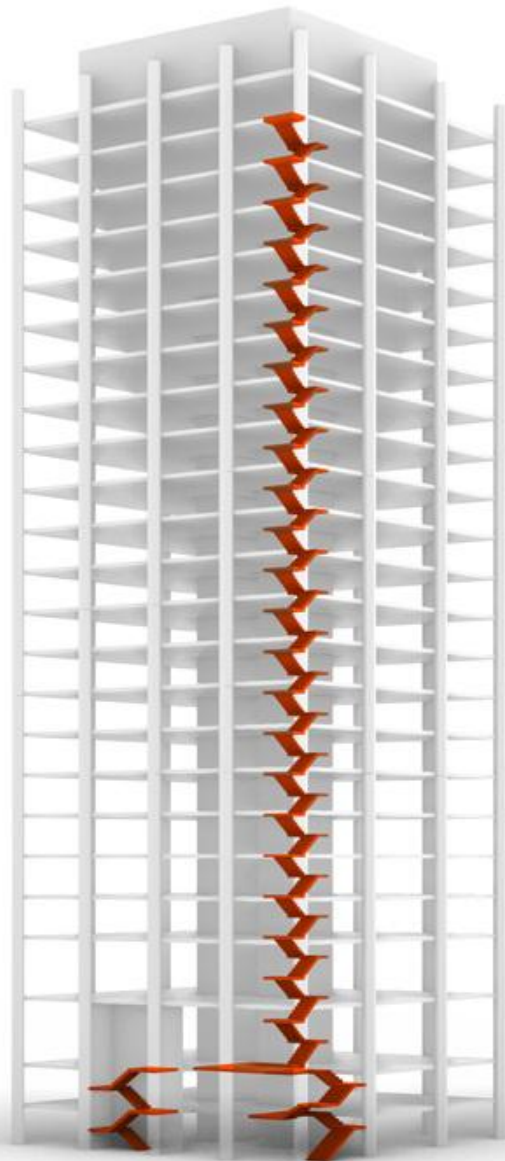


# Grenfell Tower Inquiry



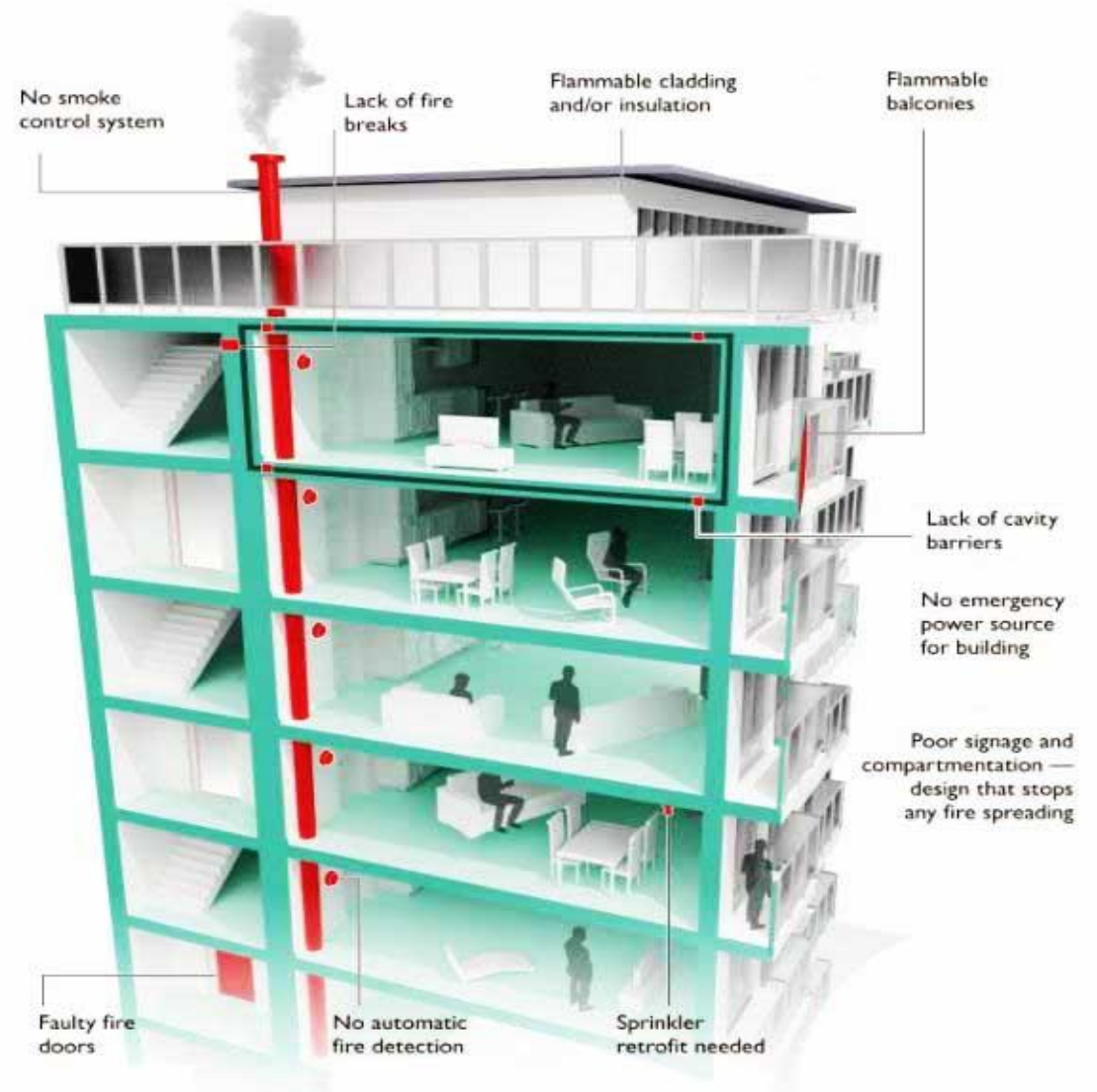
***Who is to Blame!***



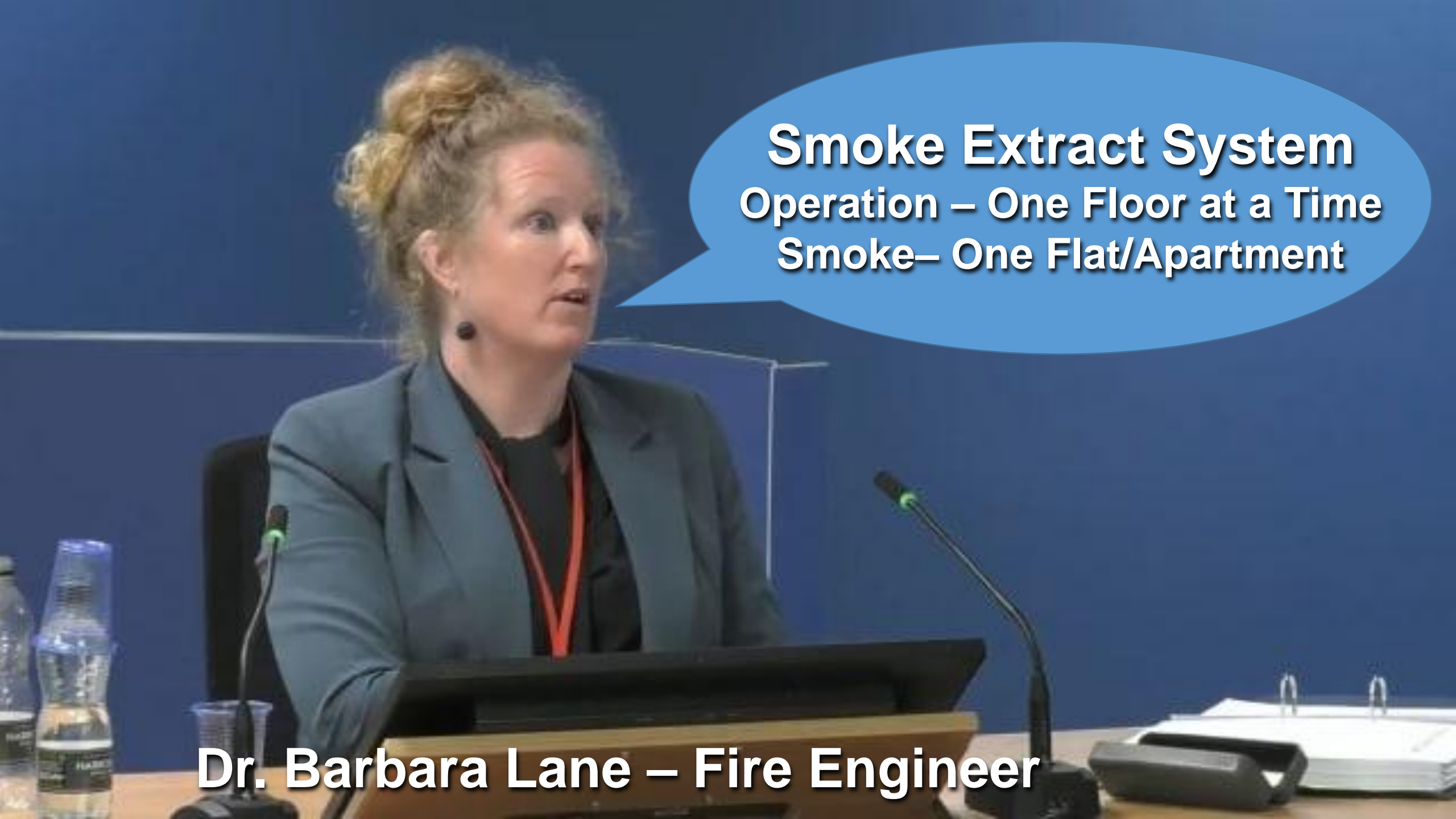


## Ten deadly flaws

Fire hazards discovered post-Grenfell



Source: MHCLG (Building Safety Bill impact assessment)



**Smoke Extract System  
Operation – One Floor at a Time  
Smoke– One Flat/Apartment**

**Dr. Barbara Lane – Fire Engineer**

A woman with blonde hair tied in a bun, wearing a blue blazer and a red lanyard, is speaking at a podium. A blue speech bubble is positioned to her right, containing the text 'The System may have contributed to Smoke migration !'. In the background, a circular inset shows a close-up of a metal grate with smoke or steam rising from it. The podium has a microphone and a water bottle on it.

**The System  
may have contributed  
to Smoke migration !**

**Dr. Barbara Lane – Fire Engineer**










So Chief can you **explain to the JURY**  
what measures you took to ensure the  
**Life Safety**  
of the **Building Occupants** against  
**The Threat of Smoke**  
during the Fire?





# **What does your Department Do To Manage**

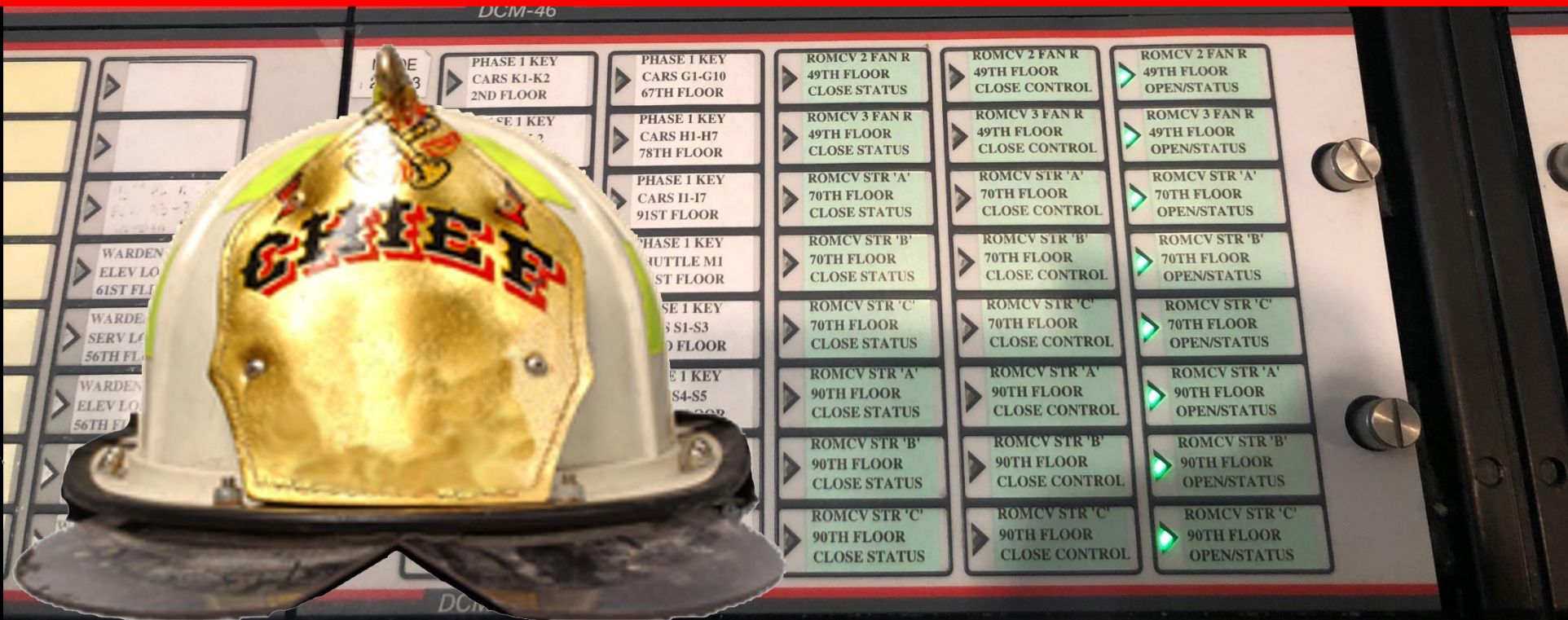
# ***Smoke***

- **HVAC Systems – Smoke Extract Systems**
- **Ventilation – Techniques – Smoke Blockers**
- **Fans – Positive / Negative Pressures**



# HVAC Systems

<https://www.youtube.com/watch?v=VyEvF87q-Rs>





Ventilation Control with

*Smoke Blockers*





# Positive Pressure Ventilation

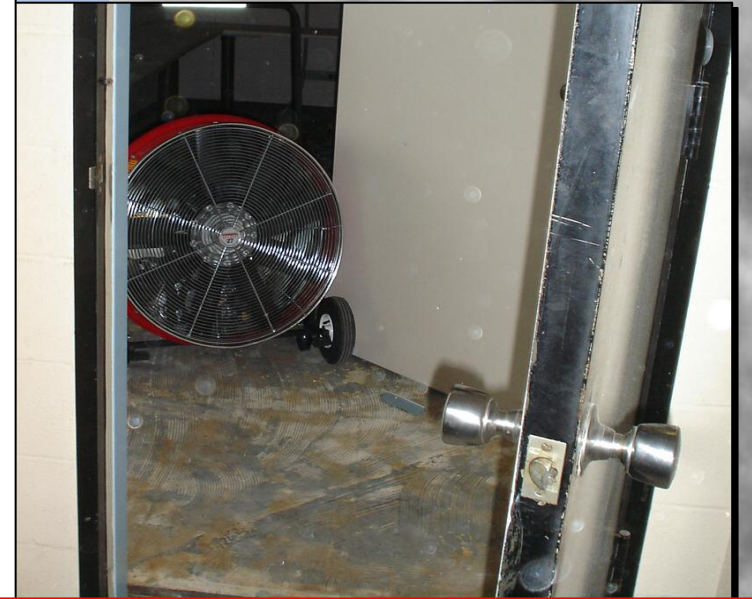


NISTIR 7412

**Evaluating Positive Pressure Ventilation In Large Structures: High-Rise Pressure Experiments**

Stephen Kerber  
Daniel Madrzykowski  
David Stroup

U.S. Department of Commerce  
Technology Administration  
Building and Fire Research Laboratory  
National Institute of Standards  
and Technology  
Gaithersburg, MD 20899



<https://nvlpubs.nist.gov/nistpubs/Legacy/IR/nistir7412.pdf>



**Homeland  
Security**

**NIST**

National Institute of Standards and Technology  
Technology Administration, U.S. Department of Commerce





A photograph of Jerry Tracy, a firefighter, wearing a helmet with the number 48 and a jacket with reflective stripes. He is standing in front of a control room with various panels and equipment.

# Thank You

**Jerry Tracy – [odatjazz108@gmail.com](mailto:odatjazz108@gmail.com)**

## HIGH-RISE BUILDINGS

UNDERSTANDING THE VERTICAL CHALLENGES

