



Verifying Fire Engineered Solutions in Scotland

Roy Davidson BSc (Hons)
SFRS Fire Engineer



SCOTTISH
FIRE AND RESCUE SERVICE

Working together for a safer Scotland



Fire Engineering Solutions should be:



Equal to or better than
the guidance provided in the Technical Handbooks



SCOTTISH
FIRE AND RESCUE SERVICE

Working together for a safer Scotland



SFRS Prospective

Positives:

- Some excellent, well presented proposals
- Clear and concise
- Relevant
- Good quality supporting evidence.



SCOTTISH
FIRE AND RESCUE SERVICE

Working together for a safer Scotland



SFRS Prospective

Positives:

- Scottish wide consistent approach
- UK wide Information sharing
- When done correctly the benefits are:

Public Safety

Firefighter safety

Financial/Economical

Environmental Protection.



SCOTTISH
FIRE AND RESCUE SERVICE

Working together for a safer Scotland



SFRS Prospective

Negatives:

- Incomplete or staged applications
- General assumptions presented without the appropriate supporting evidence
- Poor means of escape provision
- Non consideration of firefighter safety
- Incomplete and incorrect calculations
- Money saving over safety
- Cherry picking – BS 9999
- Alternative interpretations of building regulations.



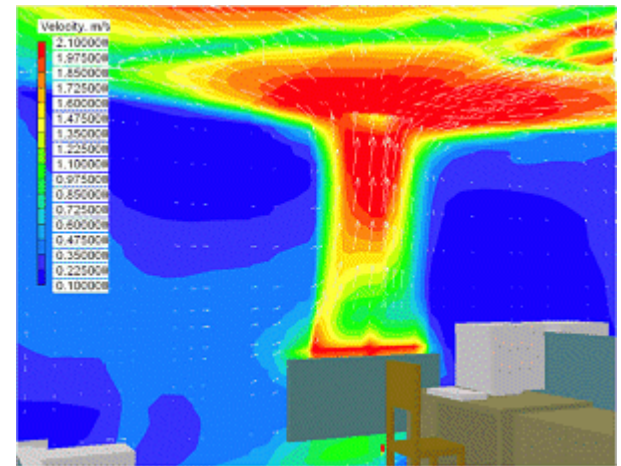
SCOTTISH
FIRE AND RESCUE SERVICE

Working together for a safer Scotland



SFRS Prospective

- Early Fire Service consultation essential
- Increased use of modelling
 - CFD Modelling commonly used
 - Supply of input data
 - Models can be manipulated
 - Models can be moderately inaccurate or misinterpreted
 - Models used in isolation with no supporting evidence.



SCOTTISH
FIRE AND RESCUE SERVICE

Working together for a safer Scotland



SFRS Prospective

Verifiers Interpretation of Fire Engineered Solutions:

- Restrictive guidance based approach
- Lack of fire engineering understanding
- Apprehension to get involved in the decision making process
- SFRS are knowledgeable well informed consultees.



SCOTTISH
FIRE AND RESCUE SERVICE

Working together for a safer Scotland



SFRS Prospective

Fire Safety Expertise of the Verifiers:

Understanding Fire Safety

Common sense
Reality
Knowledge
Experience



**Fire
Engineering**



**SCOTTISH
FIRE AND RESCUE SERVICE**

Working together for a safer Scotland



Questions???



SCOTTISH
FIRE AND RESCUE SERVICE

Working together for a safer Scotland

