

**Minutes of the meeting of the Smoke Control Association
on Thursday 25 January 2024
at the offices of FETA, Hare Hatch, READING**

Present at FETA

David	Mowatt	Chair	IFC Certification Limited
Chris	Shepherd		Adexsi UK Ltd
Conor	Logan		Colt International Ltd
Phil	Kirkham		Elta Fans Ltd
Chris	Yates		FETA
Simon	Sheldon		Fire Design Solutions Limited
Craig	Manley		Novenco Building & Industry UK Ltd
Simon	Plummer		Nuaire
Nick	Gray		Powrmatic Ltd
Colin	White		Smoke Control Dampers Ltd
Richard	Arnott		Smoke Control Solutions Ltd
Andrew	Glover		WEG (U.K.) Limited
David	Brown		Windowmaster Control Systems Ltd
Michael	Duggan	Secretary	FETA

Present on Zoom

Adam	Clare	Air Design Systems Ltd
Christina	Kebbell	BK Fire Ltd T/A LINK Smoke Control
Matthew	Beavington	BSB Engineering Services Ltd
Mike	Backham	BSB Engineering Services Ltd
Barry	Corcoran	Crossflow Airconditioning Ltd
Bradley	Smith	Delta Vent Ltd t/a Delta Smoke Control
Stuart	Woodhall	Delta Vent Ltd t/a Delta Smoke Control
Colin	Moss	Elta Fans Ltd
Ian	Doncaster	Fire And Smoke Solutions Ltd
Dan	Foster	Fire Design Solutions Limited
Granville	Harris	Fire Design Solutions Limited
Iain	Kinghorn	Flakt Woods t/a Woods Air Movement
Jayne	Goldsmith	FTG Ltd
Paul	Goldsmith	FTG Ltd
Matt	Evans	GEZE UK Ltd
George	Ward	JLA Fire & Security Limited
Michael	Crane	Keystone Communications Ltd
Steve	Lancaster	Nationwide Specialist Projects Ltd
David	Slater	Nomico Electrical Co. Ltd
Lee	Carter	Nuaire
Tony	Breen	Nuaire
Andrew	Mowat	Parking Ventilation Equipment Ltd
Paul	Bennett	PLP Fire Protection
Robert	Davison	PSB (UK) Ltd
Tim	Haigh	PSB (UK) Ltd
Alex	Finch	S&P UK Ventilation Systems Ltd
Gareth	Rahman	SCS Aftercare Ltd
Nelson	Godinho	SE Controls
Tracy	Townshend	Smoke Vent Limited
Lorenzo	Jones	Ventec 100 Ltd (TA) Vent Eng.

Paul	White		Ventilation Fire Smoke Limited
Ron	Burns		Williaam Cox Ltd
Karen	Andreassen		Windowmaster Control Systems Ltd
Richard	Curran	Guest	WM Brown

1 Welcome and introducing any new members or guests

The chairman welcomed Richard Curran from WM Brown who was attending as a guest and potential member.

If joining remotely members were asked to please ensure their name is correctly displayed as we use that for the minutes attendance list.

The **FETA Competition Law Guidelines** and the **Guidelines to FETA committee procedures** are available on www.feta.co.uk/members/events-and-meetings/schedule-of-all-feta-meetings. Attending the meeting will be taken as members' acknowledgement of the guidelines' existence.

2 Minutes from last meeting on 10 Oct 2023 at Elta.

The minutes are prepared in accordance with the Guidelines to FETA committee procedures.

2.1 Approval for accuracy

Minutes are available to view/download at <http://www.feta.co.uk/members/committee-minutes>

The minutes were approved and signed by the chair.

2.2 Matters arising

There were no matters arising not on the agenda

3 SCA consultancy by Keystone / Public affairs / Promotion / Social Media / Webinars

3.1 Update from Michael Crane on his consultant's work for the SCA since October.

A report from MC was circulated by email on 22 January and MC attended remotely to go through main points at the meeting.

2024 Fire Safety Event - Plans and Speaker Slots.

Two volunteers so far are

- Sam Wadi – ADCB Ltd – *Common mistakes in smoke ventilation installations which includes the basics of the guidelines and 'staying compliant'.*
- Craig Manley – Novenco – *Steven Attrill, Project Engineer for NOVENCO Building & Industry Group, will provide an introduction to Stack Effect and Wind Impacts in relation to natural and mechanical smoke ventilation systems. This presentation will discuss the areas of specific importance, the requirements of the applicable standards and implications on system design.*

Members agreed that these could present. The presentations need to be in the SCA format with company branding only on the slide introducing the presenter.

CIBSE Journal column in November and January are both in the report. Another in March which Alex Finch of S&P UK Ventilation Systems Ltd will be contributing a column on car park jet fans covering architecture, cooperation and coordination, safety and regulations, CFD, and commissioning.

Another Column in May will need suggestions.

These members offered to help man the stand: Simon Sheldon, Chris Shepherd, Paul White, Nick Gray, David Brown, David Mowatt, Simon Plummer plus the two speakers Sam Wadi and Craig Manley. Michael Crane will co-ordinate with members and if he needs more, we will put out a request for help. Helpers were reminded that while on the SCA stand to please not advertise their own companies over the SCA.

MC will hire seats for the helpers.

There was a discussion on give-aways. CY said he took boxes of biscuits, and they worked well. CY will deliver biscuits and bar stools to MC.

MC will arrange name badges for helpers.

3.2 Approving committee to review articles/presentations.

The Marketing WG is assisting Michael Crane with reviewing articles (CL to advise if Colt Marketing can assist also).

4 SCA guides

4.1 Enquiries into the SCA

The Technical WG is in place and answering the technical enquiries we receive. We seem to be getting more enquiries asking for design advice on specific projects. For those, we refer to the Members' Directory.

4.2 SCA WG Powered SHEVs and VSDs

Will Perkins updated members on testing in an email sent on 24 January.

The fan and drive for the first test - 30kw (36kW AOM) - have been set up and run through the test regime in anticipation of the BSRIA test. All went well.

The 5.5kW fan set is expected to be ready in mid-Feb and will also be pre-tested before submitting to BSRIA.

Currently awaiting updated dates for testing and final quotation from Mark Roper @ BSRIA. This is expected imminently, and we can be hopeful the tests can be completed before the end of March.

Tony Breen has approached the smoke control standards convenor in Europe about the possibility of producing a new EN standard to cover this issue. The testing at BSRIA is a good first step and this may be followed up in the future with a new standard.

4.3 Smoke Control Application Guide

The WG is meeting regularly. Conor Logan updated on progress and likely timescales.

4.4 Service & Maintenance WG

Lorenzo Jones updated. The WG was hoping to issue a draft for comment/discussion before this January meeting.

The draft is virtually ready for circulation. A final draft is going out to WG members today.

Equipment photographs of various situations are still needed. CL, PK, SP have photographs they will send. LJ asked for them to be emailed to Maint.WG@vent.co.uk.

MD sent CK and SS the disclaimer (sent on 25.1.24)

4.5 Measuring Volumes at Smoke Control Damper WG

Anthony Munn is leading this WG.

Mike Backham of BSB kindly hosted a meeting of the working group and ran some damper testing on their test rig at their premises in Sittingbourne in early January.

A revised test programme is now being reviewed.

Simon Sheldon is coordinating some additional work.



BSB hosting a meeting and testing at their factory

4.6 SCA Working Group Part 9 Control Panels / Part 10 Power Supplies

Simon Sheldon will update on this work. **This is now linked with item 4.7 below.**

The WG has put a proposal to NFCC for feedback. They emailed SS the day before this meeting and they like what the SCA has done. They will put it to the fire engineers for their review so we could expect feedback in 6 to 8 weeks.

4.7 Guide to help NFCC officers assess whether commissioned Smoke Vent Systems are properly validated

NFCC requirements have changed, and they are still looking for guidance to cut through the complexities of smoke control systems, so there is still a role for SCA involvement.

NG mentioned again that Will Perkins needs members feedback on why BS 7346-8 needs to be changed.

4.8 Possible revision to SCA guide - CFD Modelling for Car Park Ventilation Systems – a guide for designers and regulators

At the October meeting, it was agreed I would write to all members asking them to review the guide and suggest any changes that are needed (email sent Wed 11/10/2023 15:00). Comments were received from Chris O'Connor, Paul White and Anthony Munn. NG reviewed all comments and the SCA can then decide if a WG needs to be formed and a revision started.

ID mentioned that FSH/25 were looking to update standards to include Electric Vehicles.

5 Installer Certification Scheme IFCC SDI 19

There was nothing to update on the IFCC SDI 19 scheme.

6 Membership criteria forms – requires members URGENT attention

The URGENT request for the SCA 2024 Membership Criteria Form **to be returned by end February** to remain an SCA member was circulated by email on 6 December. As well as this email, the request will be repeated at the January meeting of the SCA, repeated in the minutes of that meeting, a reminder after the meeting and a FINAL reminder sent to non-returning members in February. **There will be no other chasing in 2024 and all members are advised to set up a robust internal company process to ensure you return the form and evidence on time.**

As of 25 January, 24 out of 44 members have returned their forms (55%). (*The returns at the time of circulation of these minutes on 13.02.24 was 32 out of 44, 73%*)

Following the end of February deadline, there will be an audit of all returns.

Sanctions for non-compliance (i.e. not returning your form) will be implemented in March. This is a tougher stance than in previous years and will mean some members may be suspended in March, but this was the request the members made at the October 2023 meeting.

6.1 Compliance statements

a) Conor Logan **lead on Part - 1 on smoke curtains**
In progress

b) Paul White/Lorenzo Jones **lead on Part - 7 on ductwork**
There was a meeting to discuss the SCA guidance on 18.11.2022

c) Colin White/Paul White **lead on Part - 8 damper**
Completed and circulated in 30 Oct 2023
Four attempts at the document so far. As a damper document, it is not ready to be published yet.

CW suggested the damper document now be taken into the smoke application guide working group.

The latest edition was sent to MD on 30 October, but it was thought this may not have been circulated to members for checking. MD was asked to check and also send it again for a final 2 week consultation. (Post meeting note: MD had not circulated the 30 October draft so has now sent it on 26 January for a two week review by members.

Following a review of any comments received and final editing, the document will be published.

d) Simon Sheldon **lead on Part – 9 Control Panels**
Continuing drafting and on 2023.03.03 invited more members to participate

WP agreed to produce a simple statement on cables in smoke shafts. The intention is to use it in IFC SDI 19 certification.

WP's proposed new text

Add new para to SCA guide 8.3.1 which states:

The SCA recommends that only control cables should be installed within a smoke shaft. Power cables are not recommended to be installed within a smoke shaft.

Note 1: BS 9991 2015 states No services other than those relating to the smoke shaft should be contained within the smoke shaft.

Note 2: BS 9991 2015 states All connections between the smoke detection, vent control panels and actuator mechanisms should be within an environment that provides protection from expected fire conditions.

Note 3: BS 7346 part 8 2013 7.2 provides further guidance on cable installation

BS 7346-8. SP made comments and so too has PW. All members were asked to provide WP with input.

6.2 SCA Complaints procedure

We received a complaint against a member on 20 October 2023 regarding expected service levels. Using the [SCA Complaints Procedure document dated Jan 2022](#), the “Administration Officer” contacted the SCA member company and the “complaint” was settled and closed three days later. Nothing in the last 3 months.

7 Grenfell Tower Inquiry

The Grenfell Tower Inquiry’s monthly Newsletters are available on <https://www.grenfelltowerinquiry.org.uk/>. While the end of June one contained an update on the “Report Progress” there was no mention of the report progress in either the July or August newsletters. The November one contained more detail on a delay to April 2024 and slow progress on the warning letters. MD’s email of 29/11/2023 had more details and a link.

Metropolitan Police has started their criminal investigation.

7.2 OPSS and Damper Discussions

Update from David Mowatt on OPSS project with assistance from SCA. The Dept of Business & Trade is leading on this. It came out of the Grenfell Inquiry.

Stuart Wheeldon, the Operational Policy Manager at the Office for Product Safety and Standards (OPSS) is attending our 27 March meeting.

OPSS are working on Part 8 and part 2

8 The Scottish Market

What can the SCA do to help raise the profile of the EN 12101 standards and general Smoke Control compliance?

Richard Curran from WM Brown was attending as a guest and potential member.

DM arranged a Zoom call in early January with Richard Curran to discuss SDI-19 in Scotland. Topics Richard had asked the SCA to consider included:

- The impact the SDI-19 scheme has had on the business and on the marketplace in Scotland in general.
- IFC (and the SCA in a wider sense) having more presence in Scotland.
- Drive the message of compliance and the importance of Smoke Control in construction and ongoing service and maintenance.

WM Brown joined the SDI scheme to push up standards, but they are one of only a few doing that in Scotland. It is common in Scotland not to be asked for SDI 19.

Home & renovations show every May in Glasgow, but RC wasn’t sure if that was the most appropriate. RC is happy to make enquiries and set up but would like some input from SCA to make it more an organisation sponsored event rather than a

We could do a CIBSE article and LinkedIn work on building control in Scotland.

LABS was mentioned.

RC could draft a letter for the SCA to send to Building Standards in Scotland. Building Standards have agreed to try to remove ambiguity so it would be advantageous to have the SCA write to them to support that.

RC will draft the letter and provide contact details.

Lorenzo Jones suggested targeted social media campaigns.

ID suggested the target approach in England to get to the key people in the Building Regulations worked well but took effort from the consultant to make this work.

CW suggested RC, MC and DM meet and develop a plan. (*post-meeting note: arranged for Tues 20 Feb at 14:00*)

Colin Herd is a useful contact in the Scottish Government. Richard Curran will provide several contacts he feels would be helpful.

9 Training

Chris O'Connor updated on the new direction for this.

Christina Kebbell and Morwenna Vinall of Colt have drafted a full course outline.

CK asked if any companies have their own training content they would be willing to share. CK & MV know how its going to be delivered and who will do the training but they need the content.

CK requested a meeting with DM and CY to go through a list of actions. CY will arrange this for some time in early February.

CY said there may be a softening of NVQ requirements which will help the experienced worker side.

10 Standards/Regulations

10.1 BSI/CEN reports

BSI FSH/025 Committee Update from WP

The next meeting of FSH/025 will take place on 20th February 2024

- BS 7346-7: Components for smoke and heat control systems - Part 7: Code of practice on functional recommendations and calculation methods for smoke and heat control systems for covered car parks

New business case being prepared to review
Committee lead [ID]

- BS 7346-8: Components for smoke control systems – Part 8: Code of practice for planning, design, installation, commissioning, use and maintenance

New business case being prepared to review
Committee lead [WP]

Further to the email sent out on 20th November, I have not received sufficient feedback from SCA members to justify to BSI the need to revise the document. Could I request again that if anyone has examples of where the standard is out of date or could be improved then please send them through to Mike Duggan by the

end of February. If I don't receive anything, it will be very difficult to get the work item to revise the standard approved. (email sent to SCA 25.01.2024)

- BS 7346-9: Components for smoke and heat control systems – Part 9: Smoke control for escape routes in apartment buildings

Business case approved and panel established
Committee lead [NG]

- BS 7346-10 : Specification for powered smoke and heat control ventilators (Fans) working in conjunction with Frequency converters over a range of operational speeds.

New business case submitted, awaiting approval from BSI
Committee lead [WP]

- CEN TC191/SC1/WG2: EN12101-2
No Progress
- CEN/TC191/WG7: prEN12101-9 and EN12101-10

The working group continues to meet to develop schedules of Essential Characteristics in preparation for a standardisation request under the CPR Acquis process. It is likely to be several years before we see any standards.

10.2 Mechanical Smoke Shaft Performance

As requested, MD wrote to the Gypsum Products Development Association GPDA on 29.11.23.

They replied immediately to say they had forwarded to their technical committee for comment and will be back in touch once they have their response.

After the Christmas break, I received a second reply on 8 January saying their technical committee feel it's a question that needs to be raised with each manufacturer direct as information by be commercially confidential. They also said that if after those approaches the SCA feels there is scope for some guidance on this issue endorsed by both trade associations then please come back to GPDA.

MD sent letters to the 4 individual member companies on 17 January.

SAINT-GOBAIN INTERIOR SOLUTIONS replied on 18 Jan saying they will discuss this internally, and will get back to me.

Etex Building Performance Ltd replied on 23 Jan saying *"they have recently launched an A1 non-combustible solution for shaft walls, but they do not recommend or promote this system for pressurised/mechanical extract. They have not tested for pressurised/mechanical extract."*

They will raise the collective view question at our next GPDA committee meeting as they would be concerned if GPDA members had differences of opinion on this."

CL said that EN 1366-15 relates to this. CL will send MD the link so members can make comments.

Action: CL

BS EN 1366-15 BS EN WI 00127455 prEN 1366-15 'Fire resistance tests for service installations. Part 15: 1-, 2-, 3- sided ducts'

Some members reported that there can be “massive deflection” of the plasterboard systems under test and that they probably would not be suitable for Natural smoke vent systems. This lead into the mention of Calcium silicate shafts and the assertion from some members that a smoke shaft is effectively a duct.

CW mentioned that Saint Gobain has a proprietary product for smoke shafts. There is also Geostaff from France, and Promat that can supply products tested to BS EN1366-8 and classified to BS EN 13501-4.

Also there is a member of ADCAS (the ductwork Association in FETA), *Firesafe Fire Rated Ductwork Limited*, that has a sheet metal product that is tested and classified. Their details are listed on www.feta.co.uk/membership/members-directory#tab-adcas.

11 SCA Funds

11.1 SCA Consultants Fund

All current SCA members have paid their subscription.

	Income	Expenditure
Balance brought forward as at 01.01.2023	-£8,458.11	
Subscriptions Income 2023	£58,286.25	
Consultants		£18,540.50
Events		£2,344.48
CIBSE		£9,904.00
Promotional		£3,510.00
Website		£542.80
IT Costs		£254.28
Other		£99.53
Totals	£58,286.25	£35,195.59
Balance as at 14.12.2023	£14,632.55	

Two SCA members withdrew from the SCA in 2023 – Lareine Engineering and Axair Fans UK Ltd.

There have been a few enquiries to join the SCA but none have yet progressed to a full application. Most of these need to do additional preparation before becoming eligible to apply.

11.2 Estimated Budget for 2024

Because of the healthy position the fund is in, the SCA decided at the October meeting to leave the Consultant’s fee unchanged for 2024.

12 Managing Director Forum and FETA annual lunch

12.1 Managing Director Forum

The SCA MD Forum meets before the FETA lunch in London. The next one is on 11 April 2024. Members will be getting an Outlook calendar invitation to the meeting in the coming

weeks. If any members of the SCA MDs Forum wish to stay on for lunch at the FETA annual lunch afterwards, they need to book their place separately with hannah@touchwavemedia.co.uk.

12.2 FETA annual lunch

Places are filling up for the annual lunch taking place on 11 April 2024 at The Brewery in London. The event organisers have advised that “all of the available tables are already booked”.

13 Dates of meetings in 2024

Wed 27 Mar, Wed 19 Jun, Wed 20 Oct

Placeholder invitations will be issued in December/January to allow members to get the dates in their calendars. The agenda and final meeting arrangements will then be issued as an “update” to the Outlook invitation closer to the actual date.

The view from the SCA MDs Forum meeting in April 2023 was to hold at least one meeting a year as a “physical only” meeting hosted by a member company without any remote participation.

In October, Andy Bartlett of Belimo offered to host a meeting at Belimo’s new Experience Centre at their Belimo UK Offices in Shepperton (near Chertsey). Members would be delighted to accept the offer to hold their June or October meeting there. MD will arrange with AB.

Action: MD / AB

Members should check the notice/agenda for meetings which will be circulated three to four weeks before the meeting as dates (and format) sometimes change.

If any member would like to host a meeting, please let Mike Duggan know.

14 Any other Business

14.1 SCA can have two further delegates on HEVAC Council

David Mowatt is on HEVAC Council as the chair of the SCA.

Under By-law 6 of the HEVAC Constitution, the SCA is entitled to two further delegates as the SCA now has over 40 companies in membership.

Please can members start thinking about it. The SCA doesn’t have to have 3 delegates – it just has the opportunity to have them if they wish.

14.2 SCA website

On the members directory <https://www.smokecontrol.org.uk/members> if you click on the “consultancy” column it takes you back to the full A to Z listing and not to a sorted consultancy list. MD will investigate and correct.

14.3 Request from the ASFP

The ASFP would like 4 simple building cross section drawings showing the following

- 1) A natural ventilation system, doors and smoke control dampers into a shaft open – with flow arrows
- 2) An MSVS, doors and smoke control dampers into a shaft open, fans – with flow arrows
- 3) A pressurisation system, doors closed and smoke control dampers into a shaft open, fans – show pressurised areas
- 4) A pressurisation system, doors open and smoke control dampers into a shaft open, fans – with flow arrows

14.4 Digital database on labelling

The EU is keen to go with a digital database.

14.5 Question from a member: What is the Association's stance regarding Social Media posts made relating to individual Members?

There appears to have been a number made where individual Members are perceived to be the "Association's favoured supplier", and as such would be interested to know what the Smoke Control Associations opinion is regarding this.

This seemed to have come from the LinkedIn posts Michael Crane is doing on each member company in the SCA. He is doing these alphabetically and will cover all members in time.

Chair

Date

Annex A MICHAEL CRANE REPORT FOR SCA, 10 OCT TO 25 JAN 2024

SCA CIBSE Journal columns

November 2023

This column was titled 'Firefighter intervention in smoke control systems'. Authored by Ian Doncaster, the column was produced in response to the ongoing discussion around firefighter intervention in smoke control systems. Please see jpeg below.

January 2024

The January column focused on maintaining smoke control systems and reiterated calls for regular smoke control maintenance to be carried out by competent contractors. The piece was attributed to David Mowatt. Please see jpeg below.

Upcoming March column

Alex Finch, Managing Director of S&P UK Ventilation Systems Ltd will be contributing a column on car park jet fans covering architecture, cooperation and coordination, safety and regulations, CFD, and commissioning.

We do not yet have a subject for the May column, suggestions/offers to draft should be emailed to David Mowatt dmowatt@feta.co.uk and myself michael@keystonecomms.co.uk.

London Build

The SCA were offered a speaking slot at London Build on 15th November as part of contra deal whereby the SCA would promote the event on social media channels. Will Perkins took part in a panel discussion on the latest safety strategies for high rise buildings.

Fire Safety Event, 30 April - 2 May – NEC, Birmingham

The SCA will again be exhibiting at the Fire Safety Event at the NEC, Birmingham. The stand number is 5/A64. Keystone will be assisting with the setting up of the stand but SCA volunteers may be needed to man the stand at various times during the event. As part of this contra deal the SCA will be sending out monthly eshots promoting the show to members and the first of these was sent out on 17th January.

The deal also includes two speaker slots at the event. A call for volunteers was sent out last month and there was interest from four SCA members. Of these four, two have provided details of the subject they would be looking to discuss:

- Sam Wadi – ADCB Ltd – *Common mistakes in smoke ventilation installations which includes the basics of the guidelines and 'staying compliant'.*
- Craig Manley – Novenco – *Steven Attrill, Project Engineer for NOVENCO Building & Industry Group, will provide an introduction to Stack Effect and Wind Impacts in relation to natural and mechanical smoke ventilation systems. This presentation will discuss the areas of specific importance, the requirements of the applicable standards and implications on system design.*

Furniture and other stand fixtures and fittings are being finalised.

Information on the event is here <https://www.firesafetyevent.com/welcome>

Membership certificates

New membership certificates have been produced for 2024 and Elizabeth at FETA will be sending them out to all SCA members, once she has received subscription payment.

Smoke Control Association social media and website

Social media followers

Twitter (X):

December: 340 (+2 compared to November)

LinkedIn

December: 2,395 (+12 compared to November)

The post reach greatly improved this month meaning more people on LinkedIn were seeing the social content and being made aware of SCA's presence online.

See social media report PDF for more statistics.

Website news stories uploaded

- New procurement legislation
- Payment practices
- Report on stack effect
- OPSS delivery report
- Building Safety Regulator update

CPD presentations

The SCA CPD presentations have been renewed with CIBSE and all five are now accredited for another two years. The presentations will need checking and updating at some point in the near future and the SCA will need volunteers with the requisite knowledge to undertake this work. The presentations are titled:

- Best practice guide to smoke extract fan maintenance
- Guide on smoke control for common escape routes in high rise apartment buildings
- Guide to CFD design of smoke systems
- Guide to smoke shaft acceptance and testing
- Design of car park smoke control systems by CFD

Firefighting and smoke control systems

In response to the ongoing discussion around firefighter intervention in smoke control systems, **Ian Doncaster**, of the SCA, examines manual override switches

Smoke control systems are required in many buildings, and protect escape routes from smoke, allowing occupant escape, safe access for fire crews, and the exhaust of heat and smoke.

The complexity of a smoke control system may vary from a single vent to a multi-core multi-compartment system in a complex building. The guidance for smoke control systems are covered in Approved Document B and British Standards BS 9999 and BS9991. Controls should be intuitive and clearly marked, to allow attending fire crews to interact easily with the system, and the controls should do what they say.

There has been much debate between the smoke control industry, fire authorities, the National Fire Chiefs Council (NFCC) and building control bodies about producing guidance that can be applied across all fire services in the UK, as the relevant standards do not offer clear guidance about manual intervention.

The smoke control requirements for a building will be specific to the fire strategy for that building and should be agreed at the start of the project. The recommended approach for this is a 'qualitative design review', known as a QDR, which involves all the relevant parties.

It is important to note that most smoke control systems are designed as one-shot systems that are set to an operating state when a fire incident is detected – they are not expected to change during a fire.

If full control of a system is required during a fire, the system must be designed to be more durable, and all elements need to operate while exposed to, or having been exposed to, fire heat and smoke.

Focusing on residential and high-rise residential buildings, it is commonly agreed that the smoke control system should, ideally, be automatic in operation, requiring no intervention from the attending fire crew. However, what does this mean in practice?

If a fire crew attends before enough smoke has leaked into the common area, the smoke control system might not be activated. In this situation, crews may want to activate the system manually before entering the fire compartment.

Look out for an upcoming SCA document on this topic which will include input from fire and rescue services and the NFCC.

● **IAN DONCASTER** is managing director at Fire and Smoke Solutions



Competence culture change is essential

Smoke control system maintenance should be carried out regularly by competent contractors, says the Smoke Control Association's **David Mowatt**

Smoke control systems can only be relied upon to operate effectively if they are checked regularly and maintained by competent operatives. Waiting until there is an incident to find out that a system isn't functioning as intended can have catastrophic consequences.

BS 7346-8 Components for smoke control systems – Code of practice for planning, design, installation, commissioning and maintenance provides details of maintenance requirements and templates for test records and service certificates.

Building owners and managers should ensure they have documented performance criteria for the installed system that confirms the basis of its compliance with Building Regulations. This should include a detailed cause and effect, which then forms the basis of the test and maintenance regime.

This regime should include daily, weekly, monthly, three-monthly, six-monthly and annual testing and maintenance. Some of these tasks may be undertaken by a suitably trained in-house individual, but others will require a certified and accredited service provider.

A qualified contractor can carry out regular maintenance on the system and ensure that any faults are rectified promptly. There is now also a requirement to notify the local fire and rescue service of any faults that are not rectifiable within 24 hours.

It isn't unusual to find smoke control system maintenance bundled in with fire alarm maintenance. However, the skill set of a smoke control engineer is different from that of a fire alarm engineer, encompassing airflow and pressure differential measurement, fan, damper and ventilator testing, and smoke and CO detection.

A fire alarm engineer may not be equipped to carry out the measurements required to confirm the correct operation of most mechanical smoke control systems.

Routine inspection and maintenance of the smoke control system should also be carried out in accordance with BS 9999:2017. BS 9999 provides recommendations and guidance about the design, management and use of buildings to achieve acceptable levels of fire safety for people in and around buildings.

A culture change is required to ensure that building owners understand the importance of smoke control systems and make sufficient provision for regular testing and reporting of faults.



● **David Mowatt** is chair of the Smoke Control Association