Introduction & presentation overview

Flintshire County Council's approach to fire risk assessment

- Sean O'Donnell, Capital Works Team Manager
- Jon Jones, Team Leader Compliance and Quality
- Mike Dymock, Contract Surveyor (Fire Safety)
- Nigel Day, Article Nine Ltd, Fire Safety Consultant

FCC housing stock overview

- Approximately 7300 residential properties in total
- Approximately 300 new build, built over the past five years
- Approximately 30% classified as sheltered accommodation
- Less than 1% leaseholder or shared ownership
- 125 residential buildings that fall within scope of the Regulatory Reform (Fire Safety) Order 2005
- 3 sheltered (HRRB's) high-rise residential buildings over 18m tall.
- Various other buildings such as community centres, community hubs, a homeless shelter and various temporary accommodation units.

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Fire risk - teams and arrangements

- Specifically for Housing, (not including corporate buildings)
  - Capital Works
  - Responsive Repairs
  - Void Properties
  - Housing and Estate Management
  - Accommodation Support Service
- FCC's Building Safety and Fire Risk Working Group's
- External Consultants and Contractors
- New build developments
- Acquired properties, purchase and gifted
- Fire and Rescue Authority

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Fire risk assessment regime overview

- Fire risk assessment numbers, cycles and frequencies
- Budget's, planning and programming
- Approach and preparation
- The use of Consultants and Contractors
- Performance reporting and continual improvement

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Client and FRA supplier relationship and arrangements

- Single point of contact on both sides, FCC and Article Nine Ltd.

- FCC - Mike Dymock, Contract Surveyor (Fire Safety)
  - Provides a full list of housing stock / assets requiring FRA's
  - Schedule of all FRA's required are in a three-year rolling plan
  - Frequency of FRA is dependent on building risk profile, (annually, two or three yearly)
  - Provides cost profile for all fire risk assessments
  - Raises Purchase Orders
  - Liaison for pre-occupation fire risk assessments for newly acquired housing stock, including temporary accommodation for homeless
  - Provides block access for the assessor, (codes, fobs etc.)
  - Provides up-front information, (service certificates, EICR reports, etc.)

Client and FRA supplier relationship and arrangements

- Nigel Day – Article Nine Ltd. (IFE Registered Life Safety Fire Risk Assessor)
  - Creates the fixed schedule, sends it to Mike
  - Conducts FRA's as planned / scheduled
  - Communicates progress of schedule completion, regularly
  - Contacts from site if issues are serious
  - Liaises with Mike on any queries, risk priority levels etc.
  - Provides guidance / clarification if required
  - Provides 'immediate' response for urgent Client requests

article nine
Fire Safety Consultancy

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Fire risk assessment format / process

- The process takes into account that Flintshire County Council, at all times, wish to comply with their legal duties in relation to the Regulatory Reform (Fire Safety) Order 2005
- The fire risk assessment format used is based on PAS 79,
- Type 1 fire risk assessments are generally conducted in blocks of flats,
- Client receives a copy of the report, its significant findings, an additional Action Plan and a library of photographs taken on the day of the site visit, within five working days, normally.
- On average there can be four fire risk assessments conducted each week.
- The Client has full visibility of schedule, (date and time for each assessment conducted).

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Significant findings – a flavour of what is found generally

- Incorrect fire evacuation procedures
- Evacuation strategies for some buildings may not conform to the current guidance.
- Lack of a regular inspection regime, (condition of fire doors, fire door closing action, storage within common areas, etc.)
- Insufficient automatic fire detection in flats, (e.g. LD3 Category in sheltered accommodation instead of LD1 / 2)
- Storage of combustible materials within common areas, including charging of electrical appliances, (e.g. mobility scooters)
- Breaches in fire compartmentation within common areas, (e.g. mains electric intake cupboards, poor installations etc.)
- Main entrance doors to blocks – lack of security, access to unauthorised persons
- Excellent standard of fire safety signage provided, generally
- FCC has adopted a policy of portable fire extinguisher removal from blocks of flats, generally
- Control of portable electrical appliances within Community Centres – PAT testing not conducted

Case Study – embedded electricity sub station in a high rise block of flats

Fire Risk Assessment Review – December 3rd 2020

Name of Client	Flintshire County Council
Property Address (1)	Richard Heights Flats Electric Sub Station
Property Address (2)	Holywell Street
Property Address (3)	Flint
County	Flintshire
Post Code	CH6 5BR
Fire Risk Assessor	Nigel Day – GIFireE
Fire Risk Assessor Signature	
Date of Site Visit	December 3rd, 2020
RR(FS)O 2005 Article 5 (3) person present:	Mr. Michael Bush, Senior Engineer, (Licensed Programmes) representing SPEN, (Scottish Power Energy Networks), the Responsible Person.

Fire risk assessment review

This document applies only to the significant findings identified within the Richard Heights Flats electrical sub-station and their effect on the rest of the building, considering all reasonable circumstances. This review further identifies that the 'Responsible Person' for the electric sub-station is SPEN, (Scottish Power Energy Networks) and that Flintshire County Council will take all appropriate action to ensure the safety of building occupants by co-operating fully with SPEN. This means that at all times FCC will work with SPEN in accordance with:

The Regulatory Reform (Fire Safety) Order 2005, Article 22 Co-operation and Co-ordination, that indicates:

22.—(1) Where two or more responsible persons share, or have duties in respect of, premises (whether on a temporary or a permanent basis) each such person must—

(a) co-operate with the other responsible person concerned so far as is necessary to enable them to comply with the requirements and prohibitions imposed on them by or under this Order;

(b) (taking into account the nature of his activities) take all reasonable steps to co-ordinate the measures he takes to comply with the requirements and prohibitions imposed on him by or under this Order with the measures the other responsible persons are taking to comply with the requirements and prohibitions imposed on them by or under this Order; and

(c) take all reasonable steps to inform the other responsible persons concerned of the risks to relevant persons arising out of or in connection with the conduct by him of his undertaking.

(2) Where two or more responsible persons share premises (whether on a temporary or a permanent basis) where an explosive atmosphere may occur, the responsible person who has overall responsibility for the premises must co-ordinate the implementation of all the measures required by this Part to be taken to protect relevant persons from any risk from the explosive atmosphere.

Background

'Richard Heights' is a high-rise purpose-built block of 88 flats providing sheltered accommodation for its residents. There are 15 floors plus the roof top. The lower ground floor contains the SPEN, (Scottish Power Energy Networks) electrical substation that is accessible by authorised SPEN employees or supervised persons, (supervised by appropriately qualified SPEN employees).

FCC, (Flintshire County Council) recognises that the SPEN electrical sub-station is a potential source of ignition in relation to fire and seeks to make this area as safe as is practicably possible.

Sub-station equipment, (potential sources of ignition)

The following list of sub-station equipment is taken from the interim report provided by SPEN:

1. Transformers - the 2011 '[illegible]' transformer is believed still to contain oil insulant, ([illegible] litres). Bus bars are insulated.
2. Switchgear – the 'Schneider' RMU unit contains SF6 insulant.
3. Cables – there is no indication that network cables are LSOH.
4. LV boards – the LV board is a modern enclosed type. (i.e. very limited exposed live)
5. Battery – no battery
6. Fire suppression systems – there is no fire suppression system

Ventilation

Ventilation / air flow to cool the transformer(s) is achieved through louvres in the two wooden doors that allow access into the sub-station, and through 4 x metal vents in the far wall. These 4 x vents discharge into the lower ground floor areas. This is a potential route for the spread of the effects of a fire in the electric sub-station.

SPEN have agreed to replace these 4 x vents with intumescent air transfer grilles conforming to British Standard BS 476-20: Part 22, or similar standard.

Co-operation

Arrangements were made for 'TCE Projects' to conduct a fire risk survey of the electrical sub-station on behalf of SPEN, in July 2020. An interim report, entitled 'Fire Risk Survey Interim Report, Richard Heights Substation 07/2473/011', was made available to FCC. Further arrangements were then made for FCC & SPEN to conduct a joint visit to the electrical sub-station on December 3rd, 2020 and for Nigel Day to make notes / take photographs to support a review of the building fire risk assessment, conducted on behalf of FCC.

The 'TCE Projects' interim report conducted in July 2020 and entitled, 'Fire Risk Survey Interim Report, Richard Heights Substation 07/2473/011' contained a Proposed Schedule of Short to Medium Term Actions, that assigned 16 actions to SPEN and 3 actions to the 'Customer' that is FCC. The three actions assigned to FCC were:

Item	Control Measures	Action	Notes
5.6.3	Review the nature of any cladding panels to the building and that these do not present a particular/enhanced fire spread risk - consider mitigating action if applicable.	Customer	Complete – a classification report by Knauf DF EWI, (External Wall Insulation) is held by FCC along with a report detailing the Exova / Warrington Fire tests results for EWI, (External Wall Insulation) applied to the building. Both of these reports indicate that the cladding is non-combustible.
5.6.4	Install emergency fire detection/alarm within the substation enclosure that would alarm throughout the Customer's building as a whole and establish a programme of testing/servicing thereafter.	Customer	FCC will extend the premises fire alarm system into the sub-station at a time to be confirmed with SPEN.
5.6.5	Incorporate as necessary applicable findings from this report within the Customer's own FRA for the building as a whole, taking into account their business operations.	Customer	Complete – this FRA review can be taken as evidence that FCC have considered the applicable findings of this review and will incorporate those findings within the next FRA review of the building due in July / August 2021.

Recommendations

1. FCC to extend the premises fire alarm system into the electric sub-station and ensure that the system conforms to BS5839-1:2017. This work should be conducted by May 2021.
2. SPEN are to complete all 16 of the actions assigned to them, in an appropriate timescale.

Photographs taken on the day:

Fire Risk Assessment

The following simple risk level estimator is based on a more general health and safety risk level estimator of the type contained in BS 8800:

Potential consequences of fire → / Likelihood of fire ↓	SLIGHT HARM	MODERATE HARM	EXTREME HARM
LOW	TRIVIAL RISK	TOLERABLE RISK	MODERATE RISK
MEDIUM	TOLERABLE RISK	MODERATE RISK	SUBSTANTIAL RISK
HIGH	MODERATE RISK	SUBSTANTIAL RISK	INTOLERABLE RISK

Taking into account the fire prevention measures observed at the time of this risk assessment, it is considered that the hazard from fire (likelihood of fire) at these premises is:

Low [V] **Medium** [ ] **High** [ ]

In this context, a definition of the above terms is as follows:

Low: Unusually low likelihood of fire as a result of negligible potential sources of ignition.

Medium: Normal fire hazards (e.g. potential ignition sources) for this type of occupancy, with fire hazards generally subject to proper controls (other than minor shortcomings).

High: Lack of adequate controls applied to one or more significant fire hazards, such as to result in significant increase in likelihood of fire.

Taking into account the nature of the building and the occupants, as well as the fire protection and procedural arrangements observed at the time of this fire risk assessment, it is considered that the consequences for life safety in the event of fire would be:

Slight Harm [ ] **Moderate Harm** [V] **Extreme Harm** [ ]

In this context, a definition of the above terms is as follows:

Slight harm: Outbreak of fire unlikely to result in serious injury or death of any occupant (other than an occupant sleeping in a room in which a fire occurs).

Moderate harm: Outbreak of fire could foreseeably result in injury (including serious injury) of one or more occupants, but it is unlikely to involve multiple fatalities.

Extreme harm: Significant potential for serious injury or death of one or more occupants.

Accordingly, it is considered that the risk to life from fire at these premises is:

Trivial [ ] **Tolerable** [V] **Moderate** [ ] **Substantial** [ ] **Intolerable** [ ]

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FRA actions - qualification, allocation and completion

- Property reference number, address and access details
- Fire risk assessment information, date, assessor, reference number etc.
- Action qualification - work type classification, detail and description e.g. electrical work, fire stopping, Joinery, policy review, performance management etc.
- Apply a priority and target date for completion
- Allocation of action to various Team's e.g. Responsive Repairs, Capital Works, Housing and Estates Management, Building Safety / Fire Risk Working Groups
- Monitor progress and review performance
- Action completion, recording and reporting

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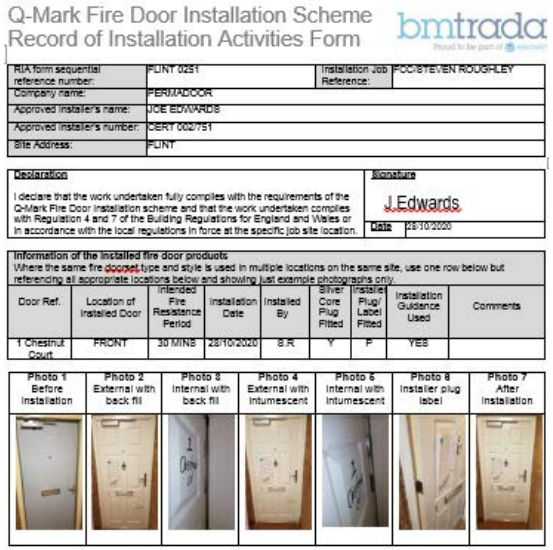
FCC Fire Risk Working Group

- Sterile procedure review and enforcement
- Flat entrance fire door renewal / handover document example
- Safety signage audit, upgrade and renewal, FCC suit of sign's (Fire Safety Wales)



Q-Mark Fire Door Installation Scheme
Record of Installation Activities Form

bmtrada

RIA form sequential reference number:	FLINT 0251	Installation Job Reference:	FCC/STEVEN ROUGHLEY
Company name:	PERMADOOR		
Approved Installer's name:	JOE EDWARDS		
Approved Installer's number:	CERT 002751		
Site Address:	FLINT		

Declaration

I declare that the work undertaken fully complies with the requirements of the Q-Mark Fire Door Installation scheme and that the work undertaken complies with Regulation 4 and 7 of the Building Regulations for England and Wales or in accordance with the local regulations in force at the specific job site location.

Signature: J.Edwards
Date: 28/10/2020

Information of the installed fire door products

Where the same fire doorset type and style is used in multiple locations on the same site, use one row below but referencing all appropriate locations below and showing just example photographs only.

Door Ref.	Location of Installed Door	Intended Fire Resistance Period	Installation Date	Installed By	Silver Core Plug Fitted	Installed Plug/ Label Fitted	Installation Guidance Used	Comments
1 Chestnut Court	FRONT	30 MINS	28/10/2020	S.R	Y	P	YES	

Photo 1 Before Installation	Photo 2 External with back fill	Photo 3 Internal with back fill	Photo 4 External with Intumescent	Photo 5 Internal with Intumescent	Photo 6 Installer plug label	Photo 7 After Installation

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Conclusion & future (building safety)

- Commitment to fire safety
- Budgets, planning and future programmes
- Objectives and expectations of the FCC Building Safety Group
- Productive relationships with Contractors and Consultants

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Questions?

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