

ESSEX POLICE, FIRE AND CRIME COMMISSIONER
FIRE & RESCUE AUTHORITY
Essex County Fire & Rescue Service (ECFRS)



Meeting	ECFRS Performance & Resources Board	Agenda Item	10
Meeting Date	29 th May 2019	Report Number	
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Subject	Risk Based Inspection		
Type of Report:	For Information		

BACKGROUND

This paper provides an:

1. Update on the Service technical fire safety (TFS) inspection programme.
2. Overview of the key themes identified in respect of Technical Fire Safety from the tranche 1 inspections

The TFS Department enforces the Regulatory Reform (Fire Safety) Order 2005 on behalf of ECFRS to maintain fire safety in non-domestic premises across the County (including the common areas in blocks of flats).

TFS officers proactively carry out programmed audits of identified higher risk premises and reactively respond to alleged fire risks (AFR's) when complaints, concerns or intelligence are received from members of the public or partner enforcement agencies.

ECFRS is a statutory consultee on building regulations, planning applications and licencing. TFS officers respond to these consultations within defined time frames. TFS officers also monitor unwanted fire signals received by the Service and engage with those responsible for the systems when false alarm thresholds are reached. The Service actively participate in Primary Authority Schemes (PAS). We currently have four partners, Salvation Army, Care UK, Co-op and the Radisson Group.

1. Fire Safety Inspection Programme – 2019/20

The Service has a risk based inspection programme (RBIP) which prioritises those premises that present the greatest risk with the rationale outlined in the Service's Fire Safety Activity Programme (see Appendix). Risk is identified by analysis of the likelihood

and outcome of a fire occurring within a specific premises type (e.g. a hospital or a residential care home).

The likelihood is assessed through examination of data of fires and enforcement activity over the preceding 4 years. This data provides two streams of information:

1. Historical: where actual fires have occurred showing high risk or failed mitigation of risk;
2. Trend based: identifies premises types which consistently fall short of the requisite fire safety standards.

The outcome is assessed using the national PORIS (Provision of Risk Information System) model: considering what result a fire incident would have on a number of factors – individual safety, firefighter safety, environmental consequences, economic impact, community/society impact, and heritage.

On this basis, premises types receive a score (activity level) calculated on the likelihood of a fire occurring and the severity of the consequences of such a fire, based on a scale of 1-5, 5 being highest risk.

E.g. hospitals

	SLN Code	Title	Known Number	Risk Score	Activity Level
1	A010	Hospital – Main Premises	44	52	4

An activity level of 4 places hospitals in the high/medium risk group. Premises in this risk group require a full audit from a TFS inspecting officer unless this is mitigated by the premises having an evidenced history of a high level of compliance.

Medium Level 4	High/medium risk Audit non-compliant premises Audit post incident or alleged fire risk FSO 40 if history of compliance
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The risk attached to different premises types can be added/changed in accordance to National or local events, trends and intelligence. This occurred after a fatal fire in a high-rise block of flats in Southend in 2016. Subsequently, high-rise residential premises were added to the inspection programme (prior to the Grenfell Tower fire).

The RBIP was reviewed in January 2019 to identify those premises that will be inspected in the 2019/20 period (see Appendix). 4663 premises were identified as being of medium/high or high risk, of which 1361 are used as sleeping accommodation and/or house vulnerable groups (Appendix Table 5).

Current resourcing allows capacity for TFS inspecting officers to audit 1479 premises in the 2019/20 period (Appendix Table 2) with a further 8112 workplace inspections to be carried out by operational crews. It is envisaged that all of the identified 1361 'higher risk' premises will be audited by a TFS officer. The remaining 3302 medium risk premises will be inspected by operational crews.

The above allows the Service to plan for the anticipated requirement for inspecting officers to audit around a further 120 premises on a reactive basis, over the 2019/2020 period e.g. following an alleged fire risk or following a national or local event or intelligence received.

It also allows for operational crews to inspect a further 4810 premises as allocated by the local area command lead TFS officer as required from the remaining 7676 identified premises. Whilst this deficit of 2866 may appear high, the majority of these premises fall within the 'Shop – individual' category and are small, local or single room generic high street stores.

Audits

Audits are conducted by qualified competent TFS officers, trained to BTEC Level 4 Diploma standard. When auditing, officers use the national audit form on an iPad, allowing direct data entry. The Service is developing a short audit form to reduce the time for Audits in premises which are compliant reducing the burden on both the Service and also on the responsible person.

Due to ongoing issues with Customer Relationships Manager (CRM), in December 2018 officers were unable to record audits on the system, resulting in the decision to cease audits while Hitachi and IT staff worked to resolve the issues. The issue was resolved but an update to the CRM system by Microsoft caused further issues. This fault was not resolved for approximately two months, which led to a reduction in the number of audits being completed in 2018-2019. Once patches were applied to CRM and testing carried out, the audit programme was re-started.

Date	Number of Audits
2016/17	1172
2017/18	1290
2018/19	896

The above figure of 896 audits completed in 2018/19 was therefore accrued within a 9 months period utilising 17.4 inspecting officers. A full 12 months' inspecting period with 20.4 TFS officers allows the projected target figure of 1545 audits for 2019/20.

It is not possible to include the number of operational crews' workplace inspections completed in 2018/19 due to CRM reporting issues.

During the period when it was not possible to complete audits, TFS officers were engaged in other meaningful activities, e.g. essential file and information review and management, to ensure organisational compliance with data protection requirements. During this period there was also a fire in Poland at an 'escape room' activity centre. TFS officers were immediately tasked with identifying all escape rooms activity centres in their area and auditing them as part of a thematic review.

2. Overview of Key Themes Identified - Tranche 1 of HMICFRS Inspections

- Lack of Resource and Capacity Hampers Inspections
 - ECFRS has identified resourcing issues for the department and this has been captured as an organisational risk. Short and long term succession planning is in place, with recruitment against vacancies underway and re-employment has been utilised for one of our highly specialised Fire Engineering roles.
- Risk Based Approach
 - The Service has a RBIP in place which has recently been reviewed and is currently engaged in an assessment of alternative RBIP methodologies to ensure effectiveness.
- Supervised Inspections
 - The Service has a process for inspection utilising the national audit form. Supervised inspections are currently carried out for officers in development, but steps are being taken for a dip sample of audits to be undertaken across all activity to ensure quality and consistency of advice and actions.
- Services respond Promptly to Planning Applications
 - The TFS department prioritise statutory consultations and endeavour to respond to all applications within the prescribed time frame. Meeting this on 100% of occasions for planning applications and 95.7% of occasions for Building Regulations.
- Business Engagement Before Enforcement
 - TFS officers are encouraged to work with Responsible Persons to resolve issues informally. Experience has shown that this approach can achieve the desired results far more quickly and at lower cost to both the responsible person. A Business Engagement Officer post has been created to enhance engagement with the business communities. In particular targeting those sectors where compliance could be improved e.g. the fast food/ takeaway restaurant sector.
- Make More Use of Prosecution Powers

- The ethos of the department is engagement before enforcement. However, the Service is well positioned to prosecute when required. The Service retains the services of a Barrister, who has been used to represent the Service in Court successfully on several occasions, the most recent Court case being in November 2017. As part of this case there was good collaboration with the Police as the defendant was ignoring/ avoiding TFS engagement so a warrant was put out for the arrest of the Responsible Person by the Court and coordination between the Fire Service and Police led to the arrest of the Responsible Person and their attendance at Court.
- The Barrister also provides legal training to TFS officers and acts in an advisory capacity.
- Three TFS officers are trained to BTEC Level 7 in Advanced Investigative Practice and so are able to conduct PACE interviews, act as the disclosure officer in cases, prepare court bundles and potentially act as an advocate in simple cases.
- Consistent Advice for Businesses
 - The Service actively participate in Primary Authority Schemes (PAS). We currently have four partners, Salvation Army, Care UK, Co-Op East and the Radisson Group. The intention is to expand the number of partnerships.
 - Steps are being taken for a dip sample of audits to be undertaken across all activity to ensure quality and consistency of advice and actions.
- Support and Education for Businesses
 - A role is being developed for a Business Engagement Officer.
- Unwanted Fire Signals
 - The Service has a Policy for reducing un wanted fire signals and TFS officers follow up on premises where the number of calls are excessive, engaging with those responsible to analyse the causes and reduce future incidents.
- Evaluate to Better Protect
 - Changes have been implemented to evaluate the RBIP, the PAS role is being evaluated in order to expand the role and number of organisations with which we engage. We are also looking to expand our post fire inspection programme, through a more detailed evaluation of the types of fires in specific types of premises, so that targeted prevention advice may be tailored for that sector in order to reduce further occurrences.

BENEFITS AND RISK IMPLICATIONS

Risks and risk management associated with a lack of resourcing leading to the Service being unable to meet its statutory obligations are captured in ECFRS strategic risk register.

FINANCIAL IMPLICATIONS

None specifically associated with this paper

EQUALITY AND DIVERSITY IMPLICATIONS

None specifically associated with this paper

LEGAL IMPLICATIONS

Enforcement activity is conducted only by suitable trained and qualified personnel to ensure legal compliance.

HEALTH AND SAFETY IMPLICATIONS

None specifically associated with this paper

Appendix

FSAP Action Plan 2019/2020

Introduction

The Risk Based Inspection Program (RBIP) had been in use since the introduction of the Regulatory Reform (Fire Safety) Order 2005 (RR(FS)O). The RF18 risk scoring process identified the potential and consequence of a fire within individual premises and generated an inspection frequency for that premises; however, this process did not satisfactorily consider the history of fires and evidence of non-compliance across the premises Supplementary Line Number (SLN) as a group.

The Fire Safety Activity Program (FSAP) was developed as a replacement for the RBIP; the process took account of the following principles:

- Intelligence led
- Risk based
- Accountable
- Reactive to emerging risks
- Consistent in use

IRMP and IRS has been analysed to identify trends and patterns over a four year period. This first phase of identifying SLNS “of interest” provides a suggested list of premises types that is further assessed under the Activity Selection process against a risk matrix for final selection within the department annual activity plan.

These premises include:

- Purpose built blocks of flats
- Sheltered schemes
- Retail
- Food and drink
- Licensed premises
- Other sleeping
- HMOs
- Waste recycling sites
- Factories/Warehouses
- Hotels and Guest Houses
- Hospitals

PORIS is nationally accepted as the method for gathering and profiling operational risk, with the inclusion of compliance and incident history factors within the likelihood tables makes it suitable as a means for the final selection of SLNs. A severity life and health table is provided for each of the following risk groups with guidance on classifying severity levels ranging from catastrophic to insignificant.

- Firefighter Safety
- Individual and Societal
- Environment
- Community

- Heritage
- Economic and other

A generic Likelihood of Incident table (**Table 3**) is used for all the risk groups with likelihood levels ranging from probable to negligible.

Application of the risk matrix produces a final level ranking from 1 to 5 that require specific activities for both life and property loss likelihood.

The Activity Selection process is applied to SLNs of interest and not to individual premises.

Future Potential

- The activity ranking for TFS can be included on CRM; PORIS level should also be on CRM against premises types
- A risk landscape can be developed to geographically show mapping of high risk levels and any reduction in subsequent years.

Annual Plan

The RBIP consisted of a rolling inspection calendar based on the potential risk within individual premises. The FSAP replaced inspection calendar and premises are issued for inspections as part of an annual plan following the Activity Selection process.

- IRMP and IRS data is analysed to select SLNs “of interest”.
- Using the likelihood table selected SLNS are assessed against the 6 severity tables as part of the Activity Selection process to determine activity levels
- Activity levels are determined by the highest score within one of the five activity bandings.
- Projected inspection capacity with available resources are agreed
- Challenging but achievable annual output targets are set
- Annual workload issued to SDPs which is then broken down to monthly segments
- Comments and actions box within the SLN record sheet provide activity guidance.
- Lead FSOs consider SLNs guidance and local autonomy on delivery of FSAP workloads
- Unless enforcement action is required the premises record is returned to database, an inspection frequency is not required unless the Lead FSO determines otherwise
- Annual review on outputs and outcomes completed by TFSDG
- Process is repeated to set following year’s annual plan

Maximum Capacity for 2019/20

20.4 Technical Fire Safety Officers within the 25 positions – correct as of 01/03/19

Table 1

District	Watch Managers	Inspecting Officers
South East Group	3	2
South West Group	3	3
North East Group	2	1
North West Group	3	3.4
Total	11	9.4

- 0.5 audit to be completed per working day by Inspecting Officers
- Management responsibilities reduce Lead FSO allocation by 50%, i.e. 0.25 audit per day
- Grey book Officers have 187 working days per year after allocation of 12 days operational training, annual leave, rota etc. = 15.5 office days per month.
- Grey book Officers: maintenance - 93 audits per year, development - 46
- Grey book Officers: (acting as Lead FSO - 50% reduction) 46 audits per year
- Green book Officers have 225 working days per year = 19 office days per month
- Green book Officers complete 112 audits per year
- Wholetime (WT) stations to complete 28 x FSO40 inspections per month per pump in line with service policy for station based personnel completing fire safety inspections. This is calculated on a 28 day calendar month, 2 hours per inspection.
- Day crewing (DC) stations to complete 10 x FSO40 inspections per month per pump. This is calculated assuming 20 weekdays during the month, 2 hours per inspection.
- On call (OC) stations to utilise 300 hours per year = 25 hours per month. Allocating officer to liaise with Station Manager. 2 person inspection = 4 hours therefore 6/7 per month. 6 person inspection = 12 hours, therefore 2 per month.

Table 2

Audits by FSO		Station Based Inspections	
Number of Officers	Number of Annual Audits	Number of pumps	Number of FSO 30/40's
6 x Watch Manager (Lead)	276	18 x WT Pumps	6048
5 x Watch Manager (Dev)	207 (see * below)	4 x DC Pumps	480
8.4 x Inspecting Officers	940	44 x OC Pumps	1584 (average 3 per month)
1 x Inspecting Officer (Dev)	56		
Total	1479		8112
Combined total 9541			

* 46 (4 x Dev TFS WM) + 23 (1 x Dev TFS WM 50% audit, 50% project) = 207

Table 3

FSAP Activities Selection Process

TFS Likelihood of Incident Descriptor	
Level	Description
Probable	<p>Data indicates that a very high number of fires have occurred in these premises. Data or local knowledge indicates that malicious fire setting is a problem in this area. High levels of non-compliance with RR (FS) O and enforcement Specific aspects of construction, occupancy, use or processes give rise for serious concern. Current risk score H to VH</p>
Possible	<p>Data indicates that a high number of fires have occurred in these premises. Above average non-compliance with RR (FS) O and enforcement activities. Specific aspects of construction, occupancy, use or processes give rise for concern. Current risk score M to H</p>
Unlikely	<p>Data indicates that medium number of fires have occurred in these premises. Evidence of compliance with RR (FS) O and low if any enforcement activities Specific aspects of construction, occupancy, use or processes give some cause for concern Current risk score L to M</p>
Very Unlikely	<p>Data indicates that low number of fires have occurred in these premises types. Evidence of compliance with RR (FS) O negligible enforcement activities Specific aspects of construction, occupancy, use or processes give little cause for concern Current risk score L</p>
Negligible	<p>Data indicates very low number of number of fires have occurred in these premises types. Evidence of compliance with RR (FS) O where applicable and negligible enforcement activities. Specific aspects of construction, occupancy, use or processes give negligible cause for concern Current risk score VL to L</p>

Table 4

Severity Tables

Firefighter Severity Table	
Level	Severity
Catastrophic	Exposure to hazards could result in very large numbers of emergency responders being impacted with significant number of fatalities, large number of personnel requiring hospitalisation with serious injuries with long term effects.
Significant	Exposure to hazards could result in a significant number of emergency responders being impacted with one or more fatalities, multiple serious or extensive injuries and significant hospitalisation.
Moderate	Exposure to hazard resulting in death or serious injury is unlikely but could result in emergency responder's impacted requiring medical treatment and hospitalisation.
Minor	Exposure to hazards resulting in death or serious injury is unlikely but could result in less serious minor injuries requiring first aid treatment.
Insignificant	Exposure to hazard resulting in injury is unlikely.

Individual and Societal Severity Table	
Level	Severity
Catastrophic	Very large numbers of people in affected areas (s) impacted with significant number of fatalities, large number of people requiring hospitalisation with serious injuries with long term effects.
Significant	Significant number of people in affected area impacted with multiple fatalities, multiple serious or extensive injuries, significant hospitalisation and activation of MAJAX procedures across a number of hospitals.
Moderate	One or two fatalities or a single family group number of fatalities with some casualties requiring hospitalisation and medical treatment and activation of MAJAX alert notification system procedures in one or more hospitals.
Minor	Small number of people affected, no fatalities and a small number of minor injuries with first aid treatment.
Insignificant	Insignificant number of injuries or impact on health.

Environment Severity Table	
Level	Severity
Catastrophic	Serious long term impact (Environmental Agency Category 1) on environment and/or permanent damage.
Significant	Significant impact (Environmental Agency Category 2) on environment with medium to long term effects
Moderate	Limited impact (Environmental Agency Category 3) on environment with short term or long term effects
Minor	Minor impact (Environmental Agency Category 4) on environment with no lasting effects
Insignificant	Insignificant effect on environment with short term or long term effects

Economic & other Severity Table	
Level	Severity
Catastrophic	Serious impact on the local and regional economy, business environment and infrastructure with some serious long term potentially permanent loss of production with some structural change. Extensive clean up and recovery costs.
Significant	Significant impact on local economy, business environment and infrastructure with medium term loss of production. Significant extra clean up and recovery costs.
Moderate	Limited impact on local economy, business environment and infrastructure with some short term loss of production with possible additional clean-up costs.
Minor	Negligible impact on local economy, business environment and infrastructure and costs easily absorbed.
Insignificant	Insignificant impact on local economy, business environment and infrastructure.

Community & Social Severity Table	
Level	Severity
Catastrophic	Extensive damage to properties and built environment in affected area requiring major demolition. General and widespread displacement of more than 500 people for prolonged duration and extensive personal support required. Serious damage to infrastructure causing significant disruption to or loss of key services for prolonged period. Community unable to function without significant support.
Significant	Significant damage that requires support for local responders with external resources. 100 – 500 people in danger and displaced for longer than one week. Local responders require external resources to deliver personal support. Significant impact on and possible breakdown of delivery of some local community services.
Moderate	Damage that is confined to a specific location, or a number of locations but requires additional resources, localised disruption of <100 people for 1 -3 days. Localised disruption to infrastructure and community services.
Minor	Minor damage to properties, minor displacement of a small number of people for < 24hours and minor personal support required. Minor localised disruption to community services or infrastructure for <24hours.
Insignificant	Insignificant number of persons displaced and insignificant personal support required, insignificant disruption to community services including transport services and infrastructure.

Heritage Severity Table	
Level	Severity
Catastrophic	Where there is a potential total loss / damage of an historical structure and/or content(s) or site of special scientific interest with national significance that can have a serious economic and/or social impact on the community either locally, regionally, nationally or in some cases internationally. With some long term potential permanent impact and loss with extensive clean up and recovery costs.
Significant	Where there is a potential of a significant loss / damage of an historical structure and/or content(s) or site of special scientific interest with national significance that can have a significant economic and/or social impact on the community either locally, regionally, nationally or in some cases internationally. With significant potential long term impact and loss with extensive clean up and recovery costs.
Moderate	Where there is a potential of limited loss of an historical structure and/or content(s) or site of special scientific interest with national significance that can have an economic and/or social impact on the community either locally, regionally, or in some cases nationally. With a potential long term impact and loss with limited clean up and recovery costs.
Minor	Where there is a potential of loss to part of an historical structure and/or content(s)) or site of special scientific interest with national significance that can have an economic and/or social impact on the community either locally, regionally, or in some cases nationally. With a potential short term impact and loss with small clean up and recovery costs.
Insignificant	Insignificant potential impact on structure and content(s) or site of special scientific interest with national significance and therefore no impact on the community.

Risk Matrix						
Likelihood						
Probable	5	5	10	15	20	25
Possible	4	4	8	12	16	20
Unlikely	3	3	6	9	12	15
Very Unlikely	2	2	4	6	8	10
Negligible	1	1	2	3	4	5
		Insignificant	Minor	Moderate	Significant	Catastrophic
		Severity				

SLN Activity Rankings	
High Level 5	Very high/high risk that may not be resolved by TFS alone. Premises may require a multi discipline and strategic solution with possible involvement of external partners. Audit is minimum activity
Medium Level 4	High/medium risk Audit non-compliant premises Audit post incident or alleged fire risk FSO 40 if history of compliance
Medium Level 3	Medium risk Consider audit at non-compliant premises FSO 40 inspection Audit post incident or alleged fire risk
Medium Level 2	Medium/low risk Consider FSO 40 inspection Audit post incident or alleged fire risk
Low Level 1	Low/very low risk Record only Audit post incident or alleged fire risk

Table 5

	SLN Code	Title	Known Number	Risk Score	Activity Level
1	A010	Hospital – Main Premises	44	52	4
2	A030	Hospice	9	52	4
3	B020	Nursing/Care Home	462	40	4
4	B050	Retirement/Elderly Home	109	40	4
5	B060	Children's Home	33	40	4
6	C050	HMO – over commercial premises	33	25	4
7	C060	HMO – local authority controlled	41	36	3
8	D010	Common Areas – Purpose Built Flats - > 4 storeys	197	34	3
9	D020	Common Areas - Purpose built Flats - 10 or more storeys	62	70	5
10	E010	Hostel – Boarding or B&B	46	40	4
11	E020	Hostel – Youth or Activity Centre	15	40	4
12	F010	Guest House – B&B other	161	27	3
13	F020	Hotel or Motel	268	44	4
14	H170	Sheltered Accommodation	446	32	3
15	H200	Student Accommodation	78	44	3
16	L030	Public House or Bar	972	45	4
17	L160	Restaurant or café - licensed	1132	45	4
18	N010	Department Store	31	48	4
19	N150	Restaurant or café - unlicensed	635	45	4
20	N210	Shop - individual	4406	31	3
21	N250	Take-Away or Fast Food Outlet	772	45	4
22	R070	Factory	954	39	3
23	R160	Manufacturing	402	37	3
24	T230	Waste Disposal or Transfer Station	40	42	4
25	T410	Garage (Servicing, Testing and Tyres)	544	30	3
26	T630	Farm - whole site /main premises	427	36	3
27	T640	Farm - Individual Agricultural Buildings - Barn etc.	20	36	3
Total			12339		

Text box highlighted in orange = Activity Level of 4 or 5 = high risk and those medium risks deemed to be of higher risk = 4663 premises

Text box highlighted in yellow = sleeping accommodation/vulnerable group = 1361 premises to be audited by inspecting officers (sheltered accommodation is not included in this group due to the dwelling accommodation being classed as domestic).

Selected SLNs 1 April 2019 to 31 March 2020

An example of how the risk score which determines activity level was calculated. This matrix calculation was completed for each premises type.

SLN Code A010	SLN Name Hospital – Main Premises	FSEC Description Hospitals and Medical Care	Score 52	Activity Level 4		
Comments Building/Non Residential/Hospitals and medical care/Hospital as an IRS group (16 th) – 58 fires Un wanted fire signal attendances to hospitals high – KSI Vulnerable persons						
Likelihood Descriptor Level: Possible						
Risk Group	FF	Relevant Persons & Society	Environment	Community	Heritage	Economic
Very High Level 5	25	25	25	25	25	25
	20	20	20	20	20	20
High/Medium Level 4	16	16	16	16	16	16
	15	15	15	15	15	15
	12	12	12	12	12	12
Medium Level 3	10	10	10	10	10	10
	9	9	9	9	9	9
	8	8	8	8	8	8
Medium/Low Level 2	6	6	6	6	6	6
	5	5	5	5	5	5
	4	4	4	4	4	4
Very Low Level 1	3	3	3	3	3	3
	2	2	2	2	2	2
	1	1	1	1	1	1