

EXECUTIVE SUMMARY – CONTAMINATES AND STAFF HEALTH AND SAFETY

Why we completed this audit

We have undertaken a Health and Safety audit focusing on the control of contaminants, in line with the organisations approved internal audit plan for 2023/24. The purpose of the audit was to review the arrangements in place in respect of managing contaminants and associated staff health and safety in the workplace. Contaminants are any biological, chemical or physical impurities that officers are exposed to and potentially harmed by. This review focuses on fire contaminants, which are the products of combustion from fires including soot and other carbonaceous materials, although arrangements for general contaminants were considered where relevant.

Officers can be exposed to fire contaminants through inhalation, ingestion and absorption, either directly at incidents, or through cross contamination when exposed in the appliance, station or at home. Exposure to fire contaminants, which are carcinogenic, has been linked to a range of health issues, including respiratory diseases and cancer. The Service has established a Contaminants Working Group, which promotes the control and reduction of exposure to contaminants and is taking action to limit the risk of contaminants to its officers.

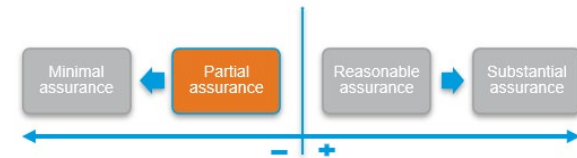
Conclusion

We found that controls were adequately designed and effective in the areas of operational monitoring activities, governance structure and training. However we found a lack of evidence of how actions resulting from monitoring and review activities had been converted into actions plans and monitored through to completion which resulted in agreeing a high and a medium action with management. We also agreed a medium action due to the absence of a strategy as although the Service objectives were expressed in various locations, these were not specifically stated in a document in respect of the Service’s vision and goals in protecting personnel from contaminants. Additionally we were not able to independently review a sample of accidents, incidents and near misses as we were only supplied with anonymised information on the last five reports, therefore we have not been able to provide assurance in this area.

Internal audit opinion:

Taking account of the issues identified, the Authority can take partial assurance that the controls upon which the organisation relies to manage this risk are suitably designed, consistently applied or effective.

Action is needed to strengthen the control framework to manage the identified risk(s).



Key findings

We identified the following weaknesses resulting in the agreement of one high and two medium priority actions.



Contaminants Checklist

We noted that a summary report, covering all inspections, was issued to the Contaminants Working Group (CWG) in November 2021 to review and agree an action plan that included a list of actions for each Station where improvement was required. We were directed to the current CWG action log, from October 2023, to demonstrate how these actions were being monitored and reviewed the action plan. However, we did not find actions referenced back to the Inspection Checklists, there were some similar actions dated later but no evidence of an action plan specific to these inspections from the original work.

We noted that some actions related to issues with premises and equipment impacted on the effectiveness of decontamination and therefore may be assessed as high risk, although risk assessments had not been included. There was an action from February 2023 with work ongoing to implement a Contaminants Overall Action Plan. In the absence of an action to clear the issues identified from the Contaminants Inspection Checklists there is a risk that issues will not be resolved. **(High)**



Strategy

We were informed by the Head of Training and Assurance that there was no strategy, however there were Health and Safety objectives for 2023/24 to reduce the risk from contaminants. We were also directed to the Contaminants Working Group with its role to continue to identify opportunities and workstreams to reduce Service employee's exposure to contaminants.

The terms of reference of the Contaminants Working Group also states that the group had been established with an objective to identify suitable measures to reduce the risk of exposure to contamination and prevent the cross-contamination of employees work and home environments.

In the absence of a strategy there is a risk that the Service objectives to reduce the risk of contaminants may be misaligned or poorly prioritised, without focus on a clear end goal. **(Medium)**



Focus Groups

We were advised that Health and Safety Focus Group meetings were carried out between November 2019 and March 2020 and were delivered to 28 of the 32 Operational Watches with an aim of discussing high profile health and safety topics and to gather feedback to allow for improved service delivery.

Further review of a report confirmed that actions following the focus group meetings were put in place and that these were forwarded to relevant committees and working groups for investigation, these groups included the Contaminants Working Group, the Management of Occupational Road Risk Working Group, and the Workwear and Clothing Committee. Specifically, we noted that actions feeding into the Contaminants Working Group included the provision of washing machines for the laundering of undergarments and oversight of the contaminants inspection of Service premises.

However there was no single action plan that we could follow through these groups to ensure actions were monitored through to completion, as such there is a risk that outputs from these groups were not converted into completed actions. **(Medium)**

We noted the following controls to be adequately designed and operating effectively



Active Monitoring Policy

Review of the Health and Safety Active Monitoring Policy confirmed that it outlined essential elements of the health and safety management system and the implementation of effective systems of pro-active monitoring. The policy adequately set out the roles and responsibilities of staff against key areas, including but not limited to day to day monitoring, safety tours, workplace inspections, station audits, active monitoring systems, developing and agreeing performance measures, and intervention, feedback and corrective action.

Review of a screenshot of the intranet confirmed the policy had been made available to staff and further review of the intranet noted the version control history was captured and the policy was in date, with a next review date of December 2025.



Active Monitoring

We confirmed that in support of the Health and Safety Active Monitoring Policy there is a Health and Safety Active Monitoring Programme document. Review of the document confirmed that it provides greater detail on the roles and responsibilities of staff for non-operational and exercise monitoring and arrangements, operational active monitoring mobilisations criteria and arrangements, incident command and safety, conduct monitoring and intervention, feedback, and review and corrective action.

Review of a screenshot of the intranet confirmed that the document had been made available to staff. Review of a screenshot of the health and safety section of the intranet confirmed that the three year active monitoring programme dated 2022 to 2025 had been shared with staff. From review of the minutes of the Health and Safety Consultation Group from February, April and June 2023 we confirmed Active Monitoring was a standing agenda item. We also confirmed from our review of the minutes of the Contaminants Working Group for June, August and September 2023 that review of Active Monitoring took place.



Active Monitoring Check List

Review of a template of the Fire Contamination Health and Safety Active Monitoring Record confirmed that it set out 16 performance measures questions to be voted yes, no, or N/A against the incident and there were also further open ended questions of intervention action taken and feedback on performance given at incident. Further review of the corresponding spreadsheet confirmed that the content from the monitoring sheets had been populated electronically.

We confirmed in discussion and by review of the information held electronically that officers recorded a response to each of the questions via an ipad with the data being automatically transferred to a spreadsheet. We also confirmed that the monitoring programme was in place in the form of a spreadsheet calendar of what area would be reviewed at what dates.

Review of the previous three months meeting minutes from May, July and September 2023 for the Health and Safety Steering Committee confirmed that there had been no active monitoring recommendations made, although this was part of the standard agenda. We also reviewed the meetings of the Safety Consultation Group for April, June and September 2023 where active monitoring was a standing agenda item with discussions on the process and actions agreed.



Risk Assessments

Review of the risk assessment dated October 2022 confirmed that a number of hazards/risks had been identified and from this people at risk and existing control measures had been recorded. Hazards/risks had also been ranked based on risk likelihood and severity. Further review confirmed a risk assessment had been completed for contamination from carbonaceous exposure and had been risk rated high. We also confirmed from a review of the minutes of the Health and Safety Steering Committee for May, July and September 2023 that the review of the programme of risk assessments, completed and allocated, formed part of each meeting.



Breathing Apparatus (BA) Training

We confirmed from a screen short from the Service intranet that there is a BA cleaning procedure. We were also informed by the Head of Training and Assurance that to establish who is in or out of cover as a BA wearer they would go to PDR Pro and run a report to show all those who have attended. We were also provided a snapshot of the PDR Pro screen where the report would be generated.

Reporting is completed bi-monthly to the Operational Delivery Team (attended by all Station Commanders) and quarterly in performance reports covering key performance indicators. Review of an extract taken from the quarter two Performance Report confirmed that the Service were at 100% of a 98% target for station-based operational BA wearers who attended a tactical firefighting assessment within the last two years. We were advised that as BA training affects appliance availability and candidates are identified in advance of due dates as such, it has not been an issue of the target rate not being met. We were also advised that a manual cross check of data between PDR Pro and those who require training is undertaken to ensure all relevant individuals have training in place and this is reported bi-monthly to the Operational Delivery Team.

We also confirmed performance data is reported to the Fire Authority meetings, with the last report presented in October 2023 for quarter 1 when BA training was reported as above target compliance.



Training Tactical Firefighter Course

We observed the first session of a tactical fire-fighting course that took place on 12 September 2023. We noted that students received a Live Fire Safety Briefing at the start of the course, noting that it included a contaminants briefing. We confirmed that traffic light zones were in place:

- Green zone - fully decontaminated (showered personnel only) - office spaces etc.
- Amber Zone - personnel who have had initial decon (decontamination wipes, removal of PPE. Appliance BA's, appliance crew cab, BA Servicing Rooms).
- Red Zone - BA Training Complex, outdoor areas (Firefighters and equipment that has not had initial decon/fire ground service).

We noted by observation that none of the trainees returned to the amber zone after contamination from the exercise, and no one entered the green zone. We observed the use nitrile gloves under PPE, and the use of decon wipes immediately after exposure.

We obtained a copy of the presentation that was given and confirmed it contained the contaminant reduction debrief slide which detailed instructions to follow in the exercise. We were escorted around the Training Centre and Kempston and Luton Fire Stations and confirmed that areas were marked as Green, Amber and Red zones, with areas for the separate storage of contaminated and clean kit.



Containment Working Group (CWG)

Review of the CWG Terms of Reference (ToR) confirmed that it defined the group's responsibility to identify suitable measures to reduce the risk of exposure to carcinogenic contamination and prevent the cross-contamination of BFRS employees work and home environments. Review further noted the ToR set out the group's membership, meeting frequency, and reporting arrangements.

Review of the last three sets of meeting minutes from June, August and October 2023 confirmed that the group had been discharging their responsibilities in line with the ToR, specifically through regular national contamination updates and how BFRS are addressing contamination risks across the service. We also confirmed standing agenda items included contaminants updates, research projects, workstreams, property and transport of contaminated equipment from incidents.

We also reviewed the latest action log for the group and confirmed each action was given an action owner and due date and regular updates had been given against the status of each. Ongoing actions included station refurbishment, washing machine installations and required cleaning equipment at stations. Further review of the last three sets of meeting minutes confirmed the actions were discussed at every meeting and progress updates had been given.



Health and Safety Steering Committee (HSSC)

Review of the HSSC Terms of Reference (ToR) confirmed that these defined the committee's responsibility to act as the senior management group to oversee and coordinate key health and safety management processes. Review further noted the ToR set out the group's membership, meeting frequency, and reporting arrangements.

Review of the meeting minutes for May, July and September 2023 confirmed that the committee had been discharging their responsibilities in line with its ToR, specifically through the discussion of organisational issues relating to competence, control, co-operation, consultation, and communication and the planning and implementation of risk assessments. Highlights from the Containments Working Group are also presented. We confirmed that where actions were agreed these were followed up at the start of each meeting.



Health and Safety Consultation Group

Review of the Health and Safety Consultation Group Terms of Reference (ToR) confirmed that they defined the group's responsibility to achieve cooperation on all initiatives aimed at improving health and safety, agreeing common interests, objectives and approaches, to achieve genuine consultation in good time on all health, safety and welfare matters through honest and open two-way communications, and to achieve a partnership approach to health and safety. Review further noted the ToR set out the group's membership, meeting frequency, and reporting arrangements.

Review of the meeting minutes from April, June and September 2023 confirmed that the group had been discharging their responsibilities in line with its ToR, specifically through the discussion of health and safety performance indicators and significant safety events. We also confirmed reference had been made to contaminants across all meetings. We confirmed that where actions were previously agreed these were followed up at the start of each meeting.



Procurement

We noted from the September 2023 minutes of the Health and Safety Steering Group, there was discussion covering the new Health and Safety objectives and an action plan to support them. One of the objectives was supporting the procurement of new Rescue Pumps. This had been included under Health and Safety as the purchase and design of new engines included improved storage of dirty kit. We reviewed the draft statement of requirements and noted it covered a total of up to 8 appliances are being sought – 5 to be delivered over a 4 year period, and an option for an additional 3 over 2 years. The design included:

- Breathing Apparatus sets x 4 to be stowed in body.
- The position must be able to be sealed to prevent water/debris contamination.
- The solution can be in the form of a separate locker or a cupboard within a suitable locker.
- The solution will allow for two of the sets to be accessed from each side of the vehicle on a slide or tilt mechanism.
- BRS would welcome information on any previous solutions you have provided to accomplish this.



Health Surveillance

We confirmed that the Service has an Occupational Health scope and structure document which set out the structure, role and responsibilities of the Occupational Health function. This included amongst other:

- Monitoring employees following the exposure and/or potential exposure to harmful substances and carrying out appropriate health surveillance.
- Fitness assessments in accordance with the Physical Fitness Policy.
- Regular review during significant illness, injury or long term absence.

We also confirmed the Service had in place procedures covering injury or exposure to toxic hazards which adequately explained the processes to be followed.

We intended to select a sample of incidents to ensure the correct procedures had been followed, however due to concerns relating to confidentiality this was denied. However we were informed by the Health and Safety Advisor that 5 events had been recorded on the SpheraCloud system since 1 April 2019. These five cases were passed to the Occupational Health Manager who supplied anonymised information for each to demonstrate the correct process had been followed for each.

2. DETAILED FINDINGS AND ACTIONS

Strategy and Policy		Assessment:	
Control	There is no strategy defining the Service's long term vision and priorities for reducing the risk of contaminants to firefighters.	Design	×
	There is a Health and Safety Active Monitoring Policy that is described as an essential element of it's health and safety management system, and is committed to implementing effective systems of pro-active monitoring which identifies problems before accidents or ill-health occur. This is supported by a procedure that explains the active monitoring programme	Compliance	N/A
Findings / Implications	<p>Strategy</p> <p>We were informed by the Head of Training and Assurance that there was no strategy, however there were Health and Safety objectives for 2023/24 to reducing the risk from contaminants. We were also directed to the Contaminants Working Group with its role to continue to identify opportunities and workstreams to reduce Service employee's exposure to contaminants.</p> <p>The terms of reference of the Contaminants Working Group also states that the group had been established with an objective to identify suitable measures to reduce the risk of exposure to contamination and prevent the cross-contamination of employees work and home environments.</p> <p>In the absence of a strategy there is a risk that the Service objectives to reduce the risk of contaminants may be misaligned or poorly prioritised, without focus on a clear end goal.</p> <p>Decontamination Procedures</p> <p>We confirmed that there is a Decontamination Procedures Policy which covers incidents involving chemical, biological, radiological or nuclear hazards (CBRN) which may require the decontamination of personnel and / or equipment. This states that there will be procedures and guidance which will refer to the appropriate decontamination of Fire and Rescue Service (FRS) personnel, for the risk involved, with the following objectives:</p> <ul style="list-style-type: none"> • To ensure that personnel who are involved can be removed from contaminated clothing or equipment without spreading contaminants onto themselves or others. • To minimise the risk of contamination by inhalation, ingestion or absorption. • To minimise the danger of contaminants spreading beyond the decontamination zone. <p>Review of the procedure statement confirmed it defined decontamination and detailed the objectives of the Service with regards to appropriate decontamination. We did however note that the statement was signed by the Chief Finance Officer in March 2016 and therefore, there is a risk of this being out of date with appropriate guidance not given.</p>		

Strategy and Policy

Management Action 1	We will develop a Contaminants Policy setting the Services long term goals referenced to individual procedures and action plans.	Responsible Owner: Head of Training and Assurance	Date: 31 March 2024	Priority: Medium
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Focus Groups

Control	Health and Safety Focus Groups were suspended due to COVID lock down	Assessment:	
		Design	×
		Compliance	N/A

Findings / Implications	<p>Focus Groups</p> <p>We were advised that Health and Safety Focus Group meetings were carried out between November 2019 and March 2020 and were delivered to 28 of the 32 Operational Watches with an aim of discussing high profile health and safety topics and to gather feedback to allow for improved service delivery.</p> <p>Review of a presentation and report that were produced confirmed health and safety content was covered. This included introductions to the Health and Safety Support Team, workplace injuries and associated time list, trends from the health and safety climate tool survey, contaminants, and vehicle collisions and vehicle mounted CCTV. The contaminants section of the presentation and report highlighted how firefighters are at a greater risk of exposure to carcinogens and other contaminants and how the Authority is taking steps to reduce this risk as well as 10 principles to follow to stop contaminants.</p> <p>Further review of the report confirmed that actions following the focus group meetings were put in place and that these were forwarded to relevant committees and working groups for investigation, these groups included the Contaminants Working Group, the Management of Occupational Road Risk Working Group, and the Workwear and Clothing Committee. Specifically, we noted that actions feeding into the Contaminants Working Group included the provision of washing machines for the laundering of undergarments and oversight of the contaminants inspection of Service premises.</p> <p>We were provided with an extract from the Health and Safety Working Group which detailed the proactive steps taken by the Service to reduce contaminants and a number of concerns that had been raised. For each concern raised, an update had been provided on it's solution. For example, an issue raised included the need for washing machines at a number of stations and an update was given on how the installation of washing machines was now underway with information and communication on their intended use. However there was no single action plan that we could follow through these groups to ensure actions were monitored through to completion, there is a risk that outputs from these groups were not converted into completed actions.</p>
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Focus Groups

Management Action 3	For future, or similar, exercises or reviews within the Service resulting in the agreement of actions, an action plan will be created against which the monitoring of those actions to completion can be performed	Responsible Owner: Head of Training and Assurance	Date: 30 April 2024	Priority: Medium
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Contaminants Check List

Control	There is a Contaminants Inspection Checklist – Premises, BA, Fire-kit, Appliances and Personnel. These were completed for all BFRS site and was a one off exercise to benchmark BFRS against others and produce a gap analysis for action	Assessment:	
		Design	✓
		Compliance	×

Findings / Implications	<p>Contaminants Checklist</p> <p>From our review of a Contaminants Inspection Checklist template we noted it covered premises, breathing apparatus, fire-kit, appliances, and personnel. In total it included 19 performance measure with questions to be answered yes, no or N/A against.</p> <p>We selected one site where an inspection was carried out and reviewed the summary report which confirmed that the site had been marked against each of the 19 performance measures and descriptive remarks had been made. Further review confirmed the inspection had been summarised and recommendations had been put in place, these included to carry out a contaminants inspection of vans and to obtain and provide facemask bags.</p> <p>We noted that a summary report was issued to the Contaminants Working Group (CWG) in November 2021, covering all inspections and to review and agree an action plan that included a list of actions for each Station where improvement was required. We were directed to the CWG action log to demonstrate how these actions were being monitored and reviewed the action plan from October 2023. However, we did not find actions referenced back to the Inspection Checklists, there were some similar actions dated later but no evidence of an action plan specific to these inspections.</p> <p>We noted that some actions related to issues with premises and equipment impacted on the effectiveness of decontamination and therefore may be assessed as high risk, although risk assessments had not been included. There was an action from February 2023 with work on-going to implement a Contaminants Overall Action Plan. In the absence of an action to clear the issues identified from the Contaminants Inspection Checklists there is a risk that issues will not be resolved.</p>
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Management Action 4	The Service will ensure that a contaminates action plan is created with actions referenced to their source, for example Contaminates Inspection Checklist, safety tours, workplace inspections, station audits. The action plan will include the owner, target completion date and regular progress updates.	Responsible Owner: Head of Training and Assurance	Date: 29 February 2024	Priority: High
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