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TO: All Members

Dear Brother/Sister

Toxic fire effluents and the risk to the health of firefighters: important new research

I wish to draw your attention to the publication of important new research which the FBU has commissioned into firefighter safety, the risks from contaminants and the risks of cancers and others threats to health.

As firefighters, we all know of a colleague or former colleague who has been diagnosed with cancer or another serious illness – and many will have lost their lives. But here in the UK, there has been an alarming lack of research into the effects of firefighting on the long-term health of those on the frontline.

In parts of Canada and the United States, presumptive legislation recognises certain cancers as occupational diseases amongst firefighters. In the UK, it has so far been concluded that there is not enough evidence to link occupational exposure to carcinogenic fire effluents and the higher risk of cancers. This means that, if a firefighter believes their illness is work-related, they are required to prove it in each case – an almost impossible retrospective task.

That is what led the Fire Brigades Union to commission the attached independent, pioneering research, led by Professor Anna Stec from the University of Central Lancashire (UCLan), into the link between firefighters' occupational exposure to toxic fire effluents, and cancer and other diseases.

FBU members can find the report attached to this circular or on the FBU website by following this link <https://www.fbu.org.uk/publication/minimising-firefighters-exposure-toxic-fire-effluents>. This report not only provides evidence of the heightened risk faced by firefighters through their work, but also delivers clear and authoritative guidance to Fire and Rescue Services across the UK about the measures they can and should take to minimise firefighters' exposure to contaminants.

The report details how firefighters face danger from breathing and ingesting contaminants long after a fire has been extinguished – and how these toxic fire effluents can be absorbed by the skin. It demonstrates where current Fire and Rescue health and safety practices are failing, builds on existing good practice and sets out a path to a safer future. Indoor air testing at a number of fire stations and training centres highlighted that UK firefighters are being exposed to the high levels of toxic contaminants, during and after a fire because cancer-causing chemicals remain on PPE clothing, equipment, and elsewhere. Test samples revealed carcinogens inside firefighters' helmets, on PPE, and even on breathing apparatus mask filters.

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More than 10,000 currently serving firefighters were surveyed in order to assess current UK decontamination practices and the prevalence of illness. This survey revealed:

- 4.1% of survey respondents had already been diagnosed with cancer, compared with less than 1% of the general population. Of these, three quarters have served for at least 10 years before receiving their diagnosis. More than half are under the age of 50 and a fifth are under 40.
- Of those diagnosed, 26% have skin cancer, the most common, followed by testicular cancer (9%) and head and neck cancer (5%).
- Half of the survey respondents do not think their fire service takes decontamination practices, including cleaning PPE and equipment, seriously.
- 1 in 5 of the survey respondents store their fire gloves in their boots, 1 in 5 store in their pockets, and 1 in 10 store in their helmet, risking the transfer of toxic contaminants directly to skin.
- Nearly half of the survey respondents felt there was a “badge of honour” attitude in the service, particularly when emerging from fires with contaminants on their PPE or face as a sign of hard work.

The report identifies a number of urgent recommendations to minimise firefighters’ exposure to toxic fire effluents. These include:

- Every fire and rescue service must implement fully risk-assessed decontamination procedures en-route to, during and after fire incidents, and ensure all relevant staff are trained in implementing these procedures.
- Fire and rescue personnel should receive regular and up-to-date training on the harmful health effects of exposure to toxic fire effluents, and how these exposures can be reduced, minimised or eliminated.
- Firefighters should wear respiratory protective equipment at all times while firefighting, including after a fire has been extinguished, but is still ‘gassing off’.
- PPE should be clean and should be thoroughly decontaminated after every incident to avoid a build-up of toxic contaminants.
- Firefighters should shower within an hour of returning from incidents.
- Regular health screening and recording attendance at fire incidents over the course of a firefighter’s career is strongly advised and will be key to the longer-term monitoring and management of their health.

We are pleased to note that ahead of UCLan’s report release, the Chair of the Environmental Audit Committee of the House of Commons recommended that the Health and Safety Executive should implement this report’s recommendations for improving firefighters’ work environments.

This vital research is funded by the Firefighters 100 Lottery. Buying tickets for the lottery remains the best way to support this work.

This interim best-practice report is only the first stage of ongoing research examining the link between firefighters' exposure to toxic fire effluents and the risk of cancer and other diseases. The next stages require more in-depth testing of firefighters' work environments. This is already underway in a number of fire stations and training centres across the country. Everyone who supports the lottery has helped to support this important research.

Members and supporters can sign up to play the lottery and help support the project here <https://www.firefighters100lottery.co.uk/>.

We are extremely proud to have commissioned this ground-breaking project, and we dedicate it to all those in the Fire and Rescue Service whose lives have, and continue to be, affected by cancer and other diseases. All members are asked to read the report and discuss the findings at branch meetings.

Health and safety is not a luxury, and we must all do what we can to make work safer for firefighters: Remember the dead, fight for the living.

Best wishes.

Yours fraternally

A handwritten signature in black ink, appearing to read 'M. Wrack', with a stylized, cursive script.

Matt Wrack
General Secretary

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