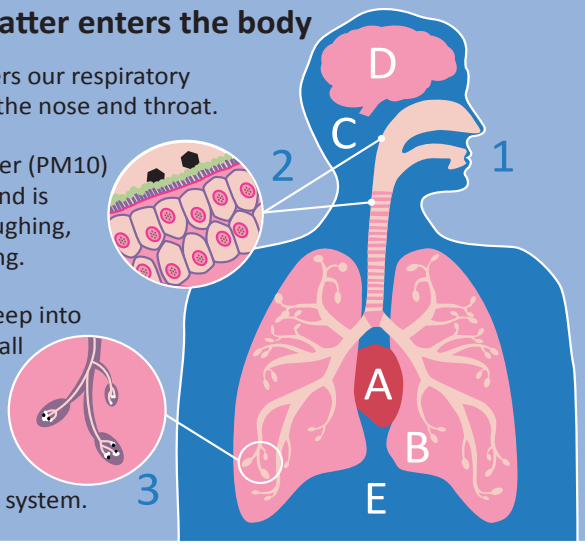
A factsheet produced by the International Transport Workers' Federation

CAMPAIGNING AGAINST AIR POLLUTION IN AIRPORTS

How particulate matter enters the body

1. Particulate matter enters our respiratory (lung) system through the nose and throat.
2. Larger particulate matter (PM10) gets caught in mucus and is eliminated through coughing, sneezing and swallowing.
3. PM25 can penetrate deep into the lungs. It can travel all the way to the alveoli, causing lung and heart problems, and delivering harmful chemicals to the blood system.



There is also a growing scientific consensus that particulate air pollution in urban environments increases the risk of:

A. heart disease
B. chronic respiratory disease
C. blood clots
D. premature death
E. several types of cancer

According to a working paper issued by the US National Bureau of Economic Research entitled, 'Airports, Air Pollution, and Contemporaneous Health': "Airports are some of the largest sources of air pollution in the United States … daily airport runway congestion contributes significantly to local pollution levels and contemporaneous health of residents living nearby and downwind from airports."

What are the health risks for airport workers?

The paper talks about a serious health risk for "residents living nearby and downwind from airports". What about the health risks for airport workers who work at, and generally live near, airports?

Although the scientific research into air pollution from ultrafine particles (UFPs) is still in its infancy, we have enough data to answer this question: **Combustion of jet fuel and diesel-powered handling equipment emit UFPs, which results in potentially high exposure levels among employees working at airports. High levels of UFPs have been reported at several airports, especially on the apron. Hundreds of thousands of aviation workers who work around aircraft at airports are seriously exposed to very harmful UFPs.**

Whats are UFPs?

UFPs are particulate matter of nanoscale size - less than 100 nanometres in diameter or have a diameter smaller than 0.1 micrometres. UFPs can be absorbed when inhaled directly into the lung lining from where they can make the transfer directly into the blood stream.

Data show significant differences in exposure levels among the occupational groups working at airports.

Baggage handlers are exposed to seven times higher average concentrations compared to employees mainly working indoors. A rough estimate of exposure of a baggage handler during one-hour of work is 45 billion particles, during peak hours.

Catering drivers, cleaning staff and airside security are exposed to intermediate concentrations.

The civil aviation industry is expected to grow at 3.1 percent annually over the next 20 years. If left unchallenged airport air pollution, and the health risks associated with it, will increase exponentially.

What are aviation unions doing?

Following the successful example of the work at Copenhagen Airport, East Midlands Airport, UK, began monitoring air quality on the airport apron. This has

found UFP levels many times that experienced in a busy town centre at rush hour and on occasions levels so high that they could not be measured by the equipment.

Gatwick Airport has produced a UFP leaflet aimed at raising awareness. Furthermore, union members have been asked to sign a template letter to the Chief Executive of Gatwick Airport about this matter and return it to their workplace reps.

In 2013, at the 38th International Civil Aviation Organisation (ICAO) Assembly, the ITF submitted a working paper entitled: 'Damaging Effects of Exposure to Fine Particles'. The paper enjoyed widespread support from the delegates and was sent to the Committee on Aviation Environmental Protection. Now, the ITF is pushing ICAO to act on this working paper.

Case study: Employers and trade unions tackle air pollution

In 2010, a study was conducted at Copenhagen Airport to test the levels of UFPs and the exposure to employees working close to aircraft. The results were alarming. The investigation showed that the levels of UFPs at one testing station were almost 4 times higher than background levels outside the airport.

In 2011, the Danish Centre for Environment and Energy published a report agreeing that UFP levels were 3 times higher around aircraft than on a busy street during rush hour, and that readings during peak times were 5-6 times higher.

At Copenhagen Airport, both employers and trade unions consider airport air quality to be a serious problem.

In Denmark, so far, 10 bladder cancer cases suffered by airport workers have been officially recognised as an occupational disease by the National Health Board.

"Air pollution at airports is cutting short the lives of workers. No airport worker should be sick from doing their job. Moreover, reducing air pollution at airports is a win-win situation that will benefit all stakeholders."

Lars Brogaard, Union Health and Safety Officer - United Federation of Danish Workers (3F)

Our ICAO work

The ITF's working paper described the potential health concerns regarding the exposure of airport employees to ultrafine exhaust particles from aircraft and diesel engines at airports, and invited the Assembly to urge ICAO to extend its policies and practices related to environmental protection into the protection of the health and safety of employees. The ITF asks ICAO to incorporate air pollution created by diesel engines into its 'Consolidated statement of continuing ICAO policies and practices related to environmental protection - General provisions, noise and local air quality'. Moreover, the ITF launched an Air Quality Working Group in 2015. The Group held its inaugural meeting at ITF House, London, 27 February 2015.

How can unions campaign against air pollution?

We can campaign in a coordinated fashion under the auspices of the Air Quality Working Group and

- encourage investment in electrical Ground Power Units (GPUs)
- reduce the amount of time vehicles are left idle running
- ensure engines are turned off when possible
- encourage rules for aircraft taxiing to/from take off on one engine
- encourage more measurements and research
- raise awareness amongst airport workers
- identify other simple and low-cost measures that can be implemented immediately
- lobby relevant internation and regional organisations, national governments, airport authorities and employers
- build alliances with community and environmental experts
- establish working groups to tackle air pollution with the participation of all relevant stakeholders, including airport owners, airlines, aviation authorities and unions

Your union can contact the ITF Air Quality Working Group: **ITFAirQualityWorkingGroup@itf.org.uk**