

Something in the air at Copenhagen airport

Copenhagen Airport is leading the field in bringing down workplace air pollution. The local branch of the United Federation of Danish Workers has played a key role in keeping air pollution a live issue. Unremitting pressure, alliances with experts, and social dialogue have been key in setting the agenda.

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Airport tarmacs are not deserted spaces. Ground crews especially are exposed to extremely high levels of fine particles.
Image: © ImageGlobe



The concentration of ultrafine particles in some parts of Copenhagen airport is now known to be three times that of Copenhagen's most heavily trafficked street during rush hour. A fact uncovered only through persistent pressure from the Kastrup¹ branch of the United Federation of Danish Workers (3F Kastrup).

3F Kastrup's two Health and Safety Advisors, Lars Brogaard and Janne Hansen, had long suspected that the air pollution at Copenhagen Airport was putting airport workers' health and safety at risk.

But mere suspicion is not good enough for an airport that is a workplace for 5,000-6,000 people and a monthly throughput of more than 1.9 million passengers (April 2012 figures).

In early 2008, however, the suspicions turned into certainties for the two Health and Safety Advisors and the Danish general public.

For that was when the first case of bladder cancer from air pollution at Copenhagen Airport was recognized as an occupational disease. The case concerned a baggage handler referred by his GP to an occupational medicine clinic. Its recommendation was what prompted the Danish National Board of Industrial Injuries to recognize the illness as an occupational disease².

News of the recognition of the bladder cancer spurred media interest in air pollution at Copenhagen Airport.

The baggage handler's case was widely reported across Danish media, first making headlines in one of Denmark's heavyweight newspapers, *Politiken*, and thereafter as the top story in both the main broadcast news programmes.

"Happily, the baggage handler was quite willing to talk to the press about his condition, not least from concerns that his workmates might develop the same disease", says Janne Hansen.

The news broadcast was instrumental in Copenhagen Airport's Vice-President for External Relations getting in touch with Lars Brogaard and promising action on the matter.

First contacts

This was not in fact the first dialogue initiated by 3F Kastrup with Copenhagen Airport over the air pollution threat to the health and safety of airport workers. What triggered it was something of a coincidence. As far back as 2004, 3F Kastrup had contacted Copenhagen Airport for the first time on the issue of air pollution.

"We had been getting complaints for many years about the airport air having an odd taste and a rash of people suffering the same illnesses", says Janne Hansen. "We asked the airport whether they had any knowledge of problems with air pollution and whether they had acted on it. They told us that they complied with all regulations. But back then, all measurements of air pollution were taken out at the airport perimeter fence, well away from the actual aircraft and those working near them", explains Lars Brogaard.

The problem with measuring air pollution only at the airport perimeter fence is that the readings are not the actual air pollution values that the airport workers are exposed to. A later report on an Italian airport³ which came into 3F Kastrup's hands found that "airport workers working in close proximity to the aircraft had damage to their DNA which could result in cancer", says Janne Hansen. 3F Kastrup alerted Copenhagen Airport to the report, and the Airport Operators Committee began looking into the issue. At first, however, this did not include taking pollution readings at Copenhagen Airport.

Regulation is not enough

After the headline-grabbing media attention that the recognition of the occupational disease received, 3F Kastrup was officially invited to join work on air pollution at Copenhagen Airport.

"It's important for us to be there where the decisions are actually taken in order to make sure that the workers' voice is heard",

At peak times in the airport, measurements recorded concentrations of five and six times the most heavily trafficked street.

1. Kastrup is a suburb of Copenhagen, best known as the site of Copenhagen Airport. Danes commonly refer to the airport as *Kastrup Lufthavn* (Kastrup Airport).

2. An occupational medicine clinic is a semi-governmental agency which, among other things, investigates links and causations between illness and exposure to air pollution.

3. Cavallo D. *et al.* (2006) "Occupational exposure in airport personnel: characterization and evaluation of genotoxic and oxidative effects", *Toxicology*, 223(1-2), 26-35.

4. An abstract is available on www.projektcleanair.dk/Målinger-CPH/documents/Partiklerengelsk.pdf.

5. A group of MEPs visited Copenhagen Airport in June.

Janne Hansen says. "The social dialogue is important. Denmark has a long tradition of dialogue and collaboration on labour issues. Trade unions and employer organizations often work out an agreement so that in fact the politicians often have no need to regulate labour issues in detail", argues Lars Brogaard.

Copenhagen Airport management, a broad section of airport workers and 3F Kastrup agreed to start by measuring the air pollution within the airport. An outside agency, Eurofins, was commissioned to take readings over a period of months.

The readings found that Danish Health and Safety at Work Act requirements were being met. But while the air pollution was within the limit values, there was a clear issue with ultra fine particles. There was not then – and still is not – a fixed limit value for ultrafine particles. But the finding was that there was a massive air concentration of ultrafine particles. In such a case, the precautionary principle has to apply, and the Danish Health and Safety at Work Act requires exposure to be limited as far as is technically and economically possible.

On basis of this report, 3F Kastrup developed a wide range of suggestions on how to reduce the emission of ultrafine particles at the airport. One of these was to replace diesel-powered vehicles and ground power units – two of the main sources of ultrafine particles – with electric ones.

Another suggestion was for landed aircraft to kill their engines and be pulled by land vehicles. "The main thing done was to mount a campaign with the slogan 'Turn off Your Engine'. It's a very good idea, but I just don't think it goes far enough if you want to really bring down emissions", says Lars Brogaard.

Setting the agenda

In 2009, 3F Kastrup, the local branch of the Danish Metal Workers' and the Guard and Security Employees Trade Union, launched

the Clean Air campaign aimed at reducing air pollution in Copenhagen Airport.

The campaign is also working with a civil engineer, Kaare Press. "When dealing with health and safety issues, it's important to have someone who really understands the more technical side of things in detail, and can explain it – not just to us, but to the media as well. Having a promoter you can rely on is crucial", argues Lars Brogaard. He continues: "At the same time, it gives us the freedom to do our job as a union. We don't have to act as an expert capable of explaining the details of how the air pollution is emitted, so we can focus as a trade union on safeguarding the health and safety interests of the airport workers".

A big part of the Clean Air campaign was to brief and regularly update the workplace health and safety reps on how the campaign was progressing. This was mainly done over the web. "It's vital that the members be involved in a campaign like this. Informing the health and safety representatives meant we were able to keep up the pressure on the companies", argues Janne Hansen.

The campaign managed to drive the agenda through 2009, and in late 2009 Copenhagen hosted the UN Climate Summit COP15, which attracted widespread attention both at home and internationally. 3F Kastrup was quick to see how this could work to their advantage. "We developed a Climate Risk Assessment which was mainly directed at reducing the climate impact, but which we also used to focus attention on how companies can improve the work environment, while saving money", Janne Hansen explains.

The Climate Risk Assessment grabbed the morning headlines, and during the summit 3F Kastrup also hosted a conference at Copenhagen Airport where European Union officials discussed the challenges of lowering the air pollution concentration with European climate NGOs and trade unions. "What we did during the summit kept up the focus on air pollution and made it clear to us that the media and other stakeholders had begun taking us more seriously", argues Janne Hansen.

2010: the momentum picks up

In 2010, further investigations were set in motion at Copenhagen Airport. The Danish Centre for Environment and Energy was commissioned to do wider-ranging research to show the scale of air pollution in the airport, including ultrafine particles.

600 000 Europeans die before their time every year due to air pollution.

The interim report showed a massive concentration of ultrafine particles in the airport of up to four times the concentration of Copenhagen's busiest main road in rush hour⁴. The issue of air pollution at the airport was thrust back into the national media headlines aided by the strong image created by the comparison between the airport and the city's most heavily trafficked street. In summer 2010, another case of bladder cancer was recognized as an occupational disease.

The wife of a retired catering driver had read an article about air pollution at Copenhagen Airport in the local newspaper, and found the similarities with her husband's case striking. Together they contacted 3F Kastrup, and the job of getting it recognized as an occupational disease was set in hand. This case was more complex than the earlier one. For one thing, the driver had spent less time in close proximity to the aircraft, incurring a lower level of exposure to ultrafine particles than the previous case. Also, he had previously been a smoker for a short period of time, which can also result in bladder cancer. Neither fact prevented it being recognized as an occupational disease. This story, too, hit the front page of the Politiken newspaper.

Using the big focus given by both the interim report and the recognition of the bladder cancer, 3F Kastrup set a series of meetings in motion at which union members were able to meet and discuss in the local office with airport representatives and a wide range of experts. It was at one of these gatherings that a representative of Copenhagen Airport first acknowledged the problem with ultrafine particles.

Leveraging the high profile given to the issue, 3F Kastrup took the agenda-setting to a new arena. MPs and MEPs raised the issue in both the Danish and European Parliaments⁵ and wanted to know what was being done to bring down the air pollution in the wake of 3F Kastrup's investigations. This again kept up the public focus on the issue.

Hard fact: air pollution is massive

The Danish Centre for Environment and Energy published its final report in 2011⁶. This concluded that point concentration of ultrafine particles in Copenhagen Airport was three – rather than 4 as in the interim report – times the concentration on Copenhagen's most heavily trafficked street in rush hour. At peak times in the airport, measurements recorded concentrations of five and six times the most heavily trafficked street for intervals of half an hour.

With these facts to hand, the airport and 3F Kastrup began jointly testing ways of bringing down the concentration. At the same time the Turn off Your Engine campaign was stepped up. Lars Brogaard stresses that the actions taken were down to good social dialogue: "The interests of Copenhagen Airport and 3F Kastrup coincide on many points. We both want to develop, not restrict, the airport, so jobs can be created and secured. At the same time, we both want workers to be healthy and productive. These common interests should be the starting point for a profitable social dialogue".

With a grim inevitability, however, the story is now starting to repeat itself. On the basis of the report's findings, 3F Kastrup hosted another conference to play up the issue of air pollution and the consequences for airport workers. This conference was again splashed all over the media – not least in view of the upcoming elections for parliament. And once again, the wife of a former airport worker read about it in the local newspaper and noted striking similarities to her husband's case. They contacted 3F Kastrup and shortly thereafter the third case of air pollution-related bladder cancer was recognized as an occupational disease.

An international issue

The Copenhagen summit on climate change was the first occasion on which 3F Kastrup pushed the issue of air pollution at airports onto the international stage. Where air travel is concerned, issues must inevitably be seen in an international context. "The final report gave us what we needed to make our effort international. We contacted the trade unions for workers in Arlanda Airport in Stockholm, and Gatwick and Heathrow Airports in London as well as the European Transport Workers Federation", explains Lars Brogaard.

6. Downloadable on <http://www.projektcleanair.dk> > Maling i CPH > Endelig rapport fra DCE. Summary in English pp. 9-12.

7. In June 2012, workers' exposure to ultrafine particles was put into the public arena by the World Health Organisation's recognition of diesel engine exhaust as carcinogenic for humans.

Since 2009, the "Clean Air" union campaign has been trying to get pollution down in Denmark's main airport. It is now heading abroad. Image: © ImageGlobe



By November 2011, the European Union's Social Fund had granted 1.3 million DKK (approximately 175,000 Euros) to a social dialogue project aimed at spreading the experience of bringing down ultrafine particle concentrations in Copenhagen Airport to all other European airports. Air pollution in airports is a big issue in a European context. There are more than one million airport workers, approximately 20% of whom are exposed to massive air pollution. 600,000 Europeans die before their time every year due to air pollution⁷.

In January 2012, the BBC ran a feature on the air pollution at Copenhagen Airport. Both Lars Brogaard and the civil engineer Kaare Press were interviewed for the feature. Two months later, the social dialogue project initiated a debate with the Airports Council International – the global trade representative of the world's airports. In June 2012 this was followed by a visit to Copenhagen Airport, by a number of European parliamentarians. The Social Dialogue Project has high expectations of the conference on air pollution and

ultrafine particles in European airports to be held in Brussels on 31 January 2013.

The next step at national level is to look into the links between exposure to air pollution and a wide range of illnesses. In 2011, 3F Kastrup and Copenhagen Airport began working more closely with the occupational medicine clinic at Bispebjerg Hospital and the Department of Public Health at Copenhagen University. "Besides bladder cancer, workers at Copenhagen Airport have suffered from lung cancer, cardiovascular diseases, clots and chronic obstructive lung disease. We suspect that those conditions may be linked to working at the airport. But, as I said before, we can't act on suspicion. We need solid proof", concludes Janne Hansen. ●

Further reading

Clean air campaign website, www.projektcleanair.dk

BBC on Air Pollution, <http://youtu.be/3ri4WGc7MeM>