



**Tuesday 9<sup>th</sup> May 2006**

## **Key Findings from the Health Surveillance and Monitoring Post Buncefield Oil Depot Fire.**

The Health Protection Agency (HPA) has worked with the Dacorum and Watford and Three Rivers Primary Care Trusts to review and monitor any health effects of the Buncefield oil depot fire. This followed on from the health advice provided by the HPA to the public and Emergency Services immediately following the explosion.

Some of the initial key findings are summarised here. A full report is expected to be published in July. This will be made available locally and will be posted on the following websites:

[www.hpa.org.uk](http://www.hpa.org.uk) [www.watford3r-pct.nhs.uk](http://www.watford3r-pct.nhs.uk) and [www.dacorum-pct.nhs.uk](http://www.dacorum-pct.nhs.uk)

The main findings from these investigations show that there was:

- no evidence of a public health risk from the plume either as deposits or on air quality;
- a relatively small number of people attended A&E. Of the 244 patients who attended three quarters were from the emergency services and of all those attending 90% were sent home without needing follow up; most of the others had minor injuries;
- differences in people's view of exposure depending on location; with people under the plume more likely to be worried about exposure than those not;
- a drop in the level of anxiety amongst the public from approximately 50% at the time of the incident to 13% about 7 weeks after the event.

Further information from the studies:

**1. Risk assessment evaluation.** The environmental impact was evaluated to confirm that the public health advice given at the time of the incident was correct: that there was no significant exposure to hazardous chemicals to the public living near the site or under the smoke plume. The air quality data at the time showed that it was unlikely that there would be any impact at ground level from the plume. To confirm this, seventy two samples from thirty three locations were taken from soils and grass downwind of the fire and compared with control locations and available information on background levels of pollutants. The samples did not show any contamination of soil and grasses due to the fire. These findings mean that there is no evidence of a public health risk resulting from deposits from the fire.

**2. Case note review of A&E attendances.** Records were reviewed of those people who sought medical attention at Hemel Hempstead and Watford A&E departments between the 11<sup>th</sup> and 14<sup>th</sup> of December. No other A&E

departments in the South East of England reported seeing anyone as a result of the fire.

In total 244 people attended A&E of which 117 had symptoms, the rest attended for a check up but were well. Most attended Hemel Hempstead A&E on Sunday 11<sup>th</sup> December. Three quarters of these were members of the emergency services of which two thirds just attended for a check up and had no symptoms. The majority, 90% of attendees, were sent home without the need for any follow up.

Of those attending A&E, 117 had symptoms attributable to the fire. Members of the public accounted for 38 of these, with injuries such as lacerations and sprains being the main complaint followed by respiratory symptoms such as shortness of breath, cough and asthma attack. Of those working at or near the depot most attended with injuries and respiratory symptoms such as shortness of breath and sore throat. The 63 emergency workers mainly presented with respiratory complaints of which half were sore throats.

**3. Occupational health survey.** A questionnaire has been distributed by the emergency services occupational health departments. Initial results from these are expected by the end of May.

**4. Concerns among the public.** A letter and questionnaire were sent to a sample of 5000 local people at the end of January to identify any concerns about the risk to their health from the smoke, contamination of the general environment (including soil, and exposure to debris) and other fallout from the smoke plume. The sample covered both the north half of Dacorum PCT, which had little exposure to the incident, the south half which was largely under the plume and Watford and Three Rivers PCT which was also under the plume.

The survey looked at peoples concerns about any health effect for them or their families at the time of the incident, if there were any on-going health concerns and their response to the public health advice. The survey had a response rate of 40%. A telephone survey was done to see why people had not responded- the main reason given was lack of concern about the health effects.

The findings showed that the level of perceived exposure varied depending on location, and that those who were under the plume being more likely to be worried about exposure than those not. Comments showed that the level of anxiety amongst the public has dropped from approximately 50% at the time of the incident to 13% when the questionnaire was distributed (7 weeks after the event). With the main reason for concern at the time being breathing in toxic smoke, the area of remaining worries was about long term health effects.

Most people received the public health advice through national television and local radio.

**5. Further sources of information:**

A report on the air quality impacts of the explosion is being published by Netcen for the Department for Environment, Food and Rural Affairs on 9th May. Further information can be found at [www.defra.gov.uk](http://www.defra.gov.uk)

The Health and Safety Executive is investigating this incident and has issued a number of progress reports which are available on the HSE website <http://www.hse.gov.uk/buncefield.htm>