

Health and Safety Executive		Sector Information Minute	
Agriculture and Food Sector		SIM 01/2007/02	
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Target Audience:
Operational Inspectors B3/B4
Occupational Hygiene Inspectors
HSAOs

INSPECTION 2007/08: FLOUR DUST IN BAKERIES

This SIM highlights the need to improve good practice amongst those exposed to flour dust and dust from enzyme-containing flour additives in small, medium and plant bakeries. This SIM should be read in conjunction with SIM01/2007/01 Inspection of Food Factories 2007/08.

BACKGROUND

- 1 The Disease Reduction Programme (DRP) aims to contribute to the FIT3 ill-health reduction targets by achieving a 2.4% reduction in the incidence of chemically induced ill health. The Respiratory Disease and Skin Disease Projects aim to achieve a 10% reduction in the incidence of occupational asthma and dermatitis by 2007/8 compared with 2003/4.
- 2 Flour dust is a hazardous substance as defined under the Control of Substances Hazardous to Health (COSHH) Regulations 2002. It is a respiratory sensitiser and is known to cause allergic rhinitis and occupational asthma. Flour dust is also an irritant and may give rise to short term respiratory, nasal and eye symptoms. It may provoke an asthmatic attack in individuals with pre-existing disease and lead to chronic bronchitis. The Workplace Exposure Limit (WEL) is 10mg/m³ (8-hr TWA) with a Short Term Exposure Limit (STEL) of 30mg/m³ (15 minute reference period).
- 3 Flour, flour additives and spices may also act as skin irritants but perhaps more commonly the handling of moist doughs, frequent hand washing, and exposure to detergents are the predominant cause of irritant contact dermatitis within the bakery industry. Flour is also a skin sensitiser.
- 4 There are about 4,500 small craft bakeries in the UK, each employing typically between 5 and 25 people, 350 medium sized bakeries (employing between 25 and 100 people) and 150 large plant bakeries (employing more than 100 people). About

27 000 workers are exposed to flour dust in the baking and associated trades. Bakers have the second highest rate of asthma among all occupations in all industries.

5 In support of the review of the flour dust limit, HSE and HSL carried out a national project to ascertain the impact the then MEL had made on bakers in terms of their understanding of the issue, control of flour dust and health surveillance. Generally it was found that there had been little change since a similar project 10 years ago in Scotland, which showed that bakery workers suffered widespread occupational ill health related to significant levels of flour dust exposure. The recent survey confirmed that this picture was repeated nationally.

ACTION AND RESOURCE REQUIRED

6 Following on from the DRP inspection initiative in bakeries in 2006/07, inspectors visiting bakeries during 2007/08 are encouraged to assess the control of exposure to flour dust.

7 Inspection should concentrate on small and medium sized bakeries as these have a much higher incidence of asthma than large plant bakeries. Inspection to bakeries operated by Greggs should be avoided unless they are part of the Large Organisations Partnership Pilot (LOPP) initiative.

8 While advice and information from inspectors is a key part of the project, it should be remembered that many bakers have been made aware of the flour dust/asthma issue in the past, not only by HSE but also through their trade associations and the trade press. Poor compliance should result in enforcement action being taken in accordance with the HSC Enforcement Policy Statement and the Enforcement Management Model.

9 Any enforcement action taken should reflect the new emphasis in Regulation 7 of COSHH 2002 (as amended) to apply the principles of good control practice when controlling exposure to substances hazardous to health – Schedule 2A provides details on what is required.

GUIDANCE

10 The primary control where a WEL is in force is to prevent the material becoming airborne in the first place. In larger bakeries good engineering control should control dust to acceptable limits. There is normally scope for using LEV at the dustier processes and this should be encouraged. Such control should also be considered in smaller bakeries where practicable. Other simple controls can be effective such as lids on mixing vessels and vacuuming spills rather than brushing.

11 In bakeries without automation some tasks produce greater exposure than others, including bag slitting and tipping, sieving, weighing and mixing. Simple changes in work practices can greatly reduce exposure at these and other tasks.

12 Information on controls and good working practices can be found in HSE publication HSG233 A Baker's Dozen which includes the 'Ten top tips for bakers'.

Also relevant are the COSHH Essentials flour control guidance sheets (www.coshh-essentials.org.uk), the Federation of Bakers booklet Guidance on Dust Control and Health Surveillance in Bakeries (also known as the Blue Book) available from office libraries, and SIM 01/2001/56 MEL for flour dust.

13 Health surveillance must be carried out, as flour dust and improvers including amylase are respiratory sensitisers. The level of surveillance required is described in HSG233, Chapter 2. One of the most common responses from smaller bakers is that professional help and advice is difficult to obtain. To some extent this does seem to reflect reality and Occupational Health Inspectors should be contacted for assistance and support as necessary.

14 Inspectors may also refer to the Dermatitis Topic Inspection Pack for specific information on dermatitis issues, also Food Information Sheet 17 Occupational dermatitis in the catering and food industries.

HEALTH AND SAFETY ISSUES

15 Please note the Health and Safety Supplements relating to general site visits, available on the Intranet under 'Your Health and Safety'.

CONTACT

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