

Health and Safety Executive		Sector Information Minute	
		SIM 01/2006/01	
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Target Audience:
Operational Inspectors B3/B4
HSAOs

INSPECTION INTERVENTION 2006/07: FLOUR DUST IN SMALL, MEDIUM AND PLANT BAKERIES

This SIM introduces an inspection intervention 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 the Manufacturing Business Group Delivery Plan (MBGDP). Version 2 makes changes to the contact details at paragraph 19 and also explains, in paragraphs 7 and 8, the reasons for exclusion of Greggs.

BACKGROUND

1 The Disease Reduction Programme 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.

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 To support this intervention, inspectors will be asked to carry out inspections in bakeries concentrating on controlling exposure to flour dust. There are two strands to this intervention one targeting small bakeries the other targeting medium sized and plant bakeries.

7 **Small bakeries** – Band 4 inspectors are asked to visit 500 small bakeries nationally (see MBGDP for the number of contact days/Division and estimated number of visits/Division). The selection criteria to be used are:

- premises with less than 50 employees;
- premises with RCI scores of 3 or less;
- premises not visited within the last two years;
- excluding Greggs, which has separate inspection arrangements under the Large Organisations Partnership Pilot (LOPP).

In this strand the HSAOs are asked to visit other food preparation and manufacturing premises where flour is used, to raise awareness of the risks and controls relating to exposure to flour dust. The MBGDP sets out the required contact days/Division.

8 **Plant and Medium Sized Bakeries** – Band 3 inspectors are asked to undertake a total of 27 contact days nationally (ie 2-5 contact days/Division – see MBGDP) to evaluate flour dust control systems and the provision of health surveillance in plant bakeries. It is recommended this work is limited to a small number of inspectors. The selection criteria here are:

- premises with more than 50 employees;
- premises with RCI scores of 3 or less;
- premises not visited within the last two years;

- to include premises acquired by major bakery chains to ensure they are benefiting from larger company expertise;
- excluding Greggs, which has separate inspection arrangements under the Large Organisations Partnership Pilot (LOPP).

9 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.

10 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

11 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.

12 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.

13 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.

14 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 Occupational Hygiene help and advice is difficult to obtain. This does seem to reflect the reality of OH cover and

EMAS should be contacted for help.

15 Inspectors may also refer to the Dermatitis Topic Inspection Pack (currently being produced) for specific information on dermatitis issues, also Food Information Sheet 17 **Occupational dermatitis in the catering and food industries**.

RECORDING

16 Operational inspectors should report on this intervention using the IRF and COIN. Further guidance on COIN recording is contained in OM 2006/08.

INSPECTOR TRAINING

17 The Disease Reduction Programme team will deliver training for FOD Band 4 staff on all operational aspects of its programme during June/July 2006.

HEALTH AND SAFETY ISSUES

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

CONTACT

19 For further information please contact Frances Roswell, Respiratory Disease Project Delivery Team, 9SW Rose Court, 2 Southwark Bridge, London, SE1 9HS e-mail: frances.roswell@hse.gsi.go.uk