The Society of Food Hygiene and Technology

The Technical Audit

INTRODUCTION

Although a regular occurrence, the technical audit still causes much anxiety on the part of suppliers. However, with proper planning and organisation much of the tension can be removed from the day and the audit can be a constructive and useful exercise.

Always find out from the visiting technologist prior to the audit the main aims of the day, produce an agenda and inform all relevant personnel.

PREPARATION

Review the customer file and ensure:

- Compliance with the relevant Code of Practice/Audit Protocol.
- The product development file is up to date.
- Raw material specifications, analysis certificates and supplier approval audits are up to date and actioned.
- Process control records accurately reflect specification, up to date and verified.
- All quality assurance and laboratory records are up to date, verfied and accurate corrective action reports exist for non complying product.
- Customer complaints have been recorded, investigated and the appropriate action taken.
- Any previous audit observations have been signed off or adequate explanation is available.
- Packaging compliance certificates are on file.
- Recent records of Product recall and traceability trials.

In addition have the following documents available for inspection:

- Company quality system including, HACCP, IS09000, BRC/IFS Certification
- Site management structure
- Internal audit reports
- Training policy and training records
- Pest control documentation
- Cleaning schedules and records
- Waste management documentation including contracts and transfer notes.
- Foreign body controls
- Calibration records
- Product Inspection and analysis records

THE INSPECTION

Generally there will be five main sections to the Audit, although these will vary depending on the auditor and audit protocol.

Opening Meeting – The objectives and structure of the day will be agreed and the scope of the audit confirmed.

Site Audit - A full and detailed inspection of the site including all storage, production, laboratory and employee facilities will be completed. All processes and process controls will be observed where possible and the compliance to procedures assessed.

Traceability Assessment – The site must collate all of the records for one or more products chosen by the Auditor. The records will be reviewed to ensure that full traceability can be demonstrated and that the product has been produced safely and in accordance with the Specification.

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Document Audit – General policies and procedures may be reviewed which relate to production / site activities.

Closing Meeting – All non-conformances raised during the audit will be discussed.

Digital cameras may be used to photograph evidence, on request these pictures can be viewed prior to the auditor leaving the site.

The exact nature of the audit will obviously vary from one auditor to another, depending on its main purpose. However, the core of the audit is likely to cover all of the areas listed below:

Buildings
Raw materials
Storage
Processing
Food handling practices
HACCP
Quality Assurance
Laboratory testing
Personnel:
Training
Medical screening
Protective Clothing
Site Access
Cleaning
Pest Control
Waste Disposal
Distribution

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For each area the key concerns and requirements that the auditor is likely to address are detailed.

Areas of Inspection

Buildings

- Premises must be adequate for the purpose of the operation and free from contamination or flooding.
- The fabric of the building must be maintained in good order and capable of being regularly and easily cleaned.
- The layout of the building should be designed to prevent cross contamination.
- Separate areas must be provided for toilet and washing facilities and for staff to eat, drink, change and, if necessary, smoke.
- The floor must be impervious, intact and easily cleaned. The junction of floor and walls must be sealed, impermeable and, ideally, curved.
- There must be adequate drainage to prevent the accumulation of free-standing water. In production areas where high risk facilities are necessary, a separate drainage system should be provided between the low and high risk areas. The drains must be adequate to deal with peak effluent loads. Drain covers should be removable and the drains so lined as to allow for thorough cleaning.
- Windows should be avoided within production areas. Those that exist must be unbreakable and either locked or provided with rust proof fly screens.
- Lighting must be adequate for the purpose of the operation. All lights should be protected by covers or be within sealed units.
- Ceilings should be flat, or suspended, with services being dropped through them. Where a vaulted ceiling exists provision must be made for regular cleaning. Where false ceilings are incorporated, access points for inspection of such voids should be present.

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Raw Materials

- Where raw materials are being purchased as a component in an own label product a written specification should be agreed with the supplier. The specification should cover composition, processing details, quality control, receipt temperatures and chemical and microbiological standards.
- On delivery all raw materials should be checked against specification. There should be clearly defined batch identification systems, and appropriate quarantine systems for rejected raw materials. Records should be kept of all checks. Each delivery should be given a reference code which will identify it during storage and processing.
- All process water must be of potable quality conforming to UK legislation.
- Microbiological and chemical analysis of water samples must be undertaken at an appropriate frequency.
- A batch traceability system must be in place to track raw materials through to finished product.
- All packaging materials must be stored under clean and hygienic conditions, and must comply with legal standards and guidelines relating to materials and articles in contact with food.

Ingredients/Material Storage

- All materials prior to processing should be kept in appropriate storage conditions.
- Where bulk silos are used they should be inspected regularly, both internally and at their base. Seals should be regularly checked for mould growth. Checking of silos for evidence of pests should also be included in the pest control contract.
- There should be adequate storage, production and holding facilities for all stages of processing.
- Ideally goods should not be stored within a processing area, but where it is unavoidable they must be stored in a designated area, physically separated from production.
- All chillers, freezers and temperature controlled areas should have temperature recording systems of known accuracy.

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Processing

- The manufacturing process must be fully specified in writing and personnel must be trained to carry out the procedures correctly.
- Records must be kept of pressures, gas mixes, cooking and chilling times, temperatures and any other critical control parameters.
- All cooking processes must achieve the specified temperatures and times (or F0 value).
- Equipment must be fully maintained and serviced as appropriate with calibration of critical control/monitoring instruments.

Food Handling Practices

- Product flow must always be such as to prevent any cross contamination.
- Where raw and cooked products are held within the same unit all possible precautions must be taken to keep them separate. A high/low risk code of practice must be established in these areas to include:
    - Staff handling raw products must be kept separate from those handling cooked products. They should be provided with separate changing facilities and, ideally, with separate toilets and canteens.
    - An adequate number of hand wash stations should be available and equipped with hand sterilisers. A hand wash station should be located at the entrance to each production area.
    - Colour coded protective clothing should be worn. 'High Risk' clothing must be worn only in the appropriate production areas.
    - Separate equipment and facilities, including those for cleaning, should be used for handling raw and cooked foods.
    - Raw, cooked and packed products should be stored in separate areas.

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Quality Assurance Records

Records must be kept as appropriate to include e.g.:

- Raw material intake
- Processing parameters
- Air temperature control
- Temperature controls
- Glass breakage
- Check weighing both of components and finished product
- Metal detection every 60 minutes or change of product, whichever is the shorter.
- Packaging integrity checks
- Date coding, pricing, line numbers and bar codes.

Laboratory

- Either an on site laboratory or a consultant should be used. Manufacturers should be working towards suitable accreditation of their own laboratory facilities and should participate in recognised quality assurance schemes.
- Where a third party is used it should be of a recognised standard and ideally should be UKAS accredited for the analyses concerned, or accredited by a recognised authority.

Personnel: Training

- The training/supervision of staff in hygiene awareness and food handling practices is a legal requirement and must be on going from the initial hygiene induction on the first day. Where there is no in house training resource, arrangements must be made for staff to attend external courses.
- Personal training records must be kept to demonstrate that employees are adequately trained for the required task.

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Personnel: Medical Screening

- Medical screening should be carried out for all open food handlers. This could take one or more of the following forms:
- Employees to complete a medical questionnaire.
- GPs to be advised of the 'open food' status of their patients (with the individual's consent).
- Employees to be screened by a medical practitioner or a registered general nurse.
- Members of staff suffering from infectious diseases, including stomach upsets, must inform management and must not return to a high risk area until cleared by their GP or the Company's Medical Department.
- All sores, cuts, grazes, infected areas and other wounds must be fully covered by blue waterproof dressings or waterproof sleeves etc.
- On return from sickness all food handlers must be seen by an appropriate member of management before starting work within a food production area and preferably complete a health declaration that they are fit for work.

Personnel: Protective Clothing

- All personnel entering a production area must wear protective clothing. Coats should be securely cuffed, without external pockets and secured with fasteners, not buttons.
- Hair should be totally enclosed within a hat or net and beard snoods be provided.
- No jewellery or watches should be allowed except a plain band ring and sleeper earrings.

Personnel: Site Access

- All visitors to the site must be made aware of the relevant food hygiene regulations and be provided with the appropriate protective clothing.
- Visitors should be asked to complete a simple medical questionnaire to ascertain their current state of health before they are allowed access to food production areas.

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Cleaning

- There should be a written cleaning schedule in operation for all parts of the factory, identifying the frequency and methods of cleaning along with the personnel responsible for cleaning.
- The appropriate cleaning chemicals should be used and should include bactericidal detergents and/or terminal sanitisers. These chemicals should be kept in a locked store and the technical data and antidote information sheet must be available for all materials used.
- The efficiency of the cleaning process should be audited, with all plant and equipment checked for integrity and cleanliness before use. Results of audits should be retained.
- Where appropriate an on site laboratory should carry out post cleaning swabbing.

Pest Control

- The factory must be made pest free by good proofing and housekeeping practices. Pests are defined as rodents, birds, flies and any other walking, crawling or flying insects or mites.
- There should be an effective specialist pest control contract in force. The contractor should preferably be a member of the British Pest Control Association. The contract should cover inspection of all areas of the site including warehousing, storage facilities and bulk silos. All site inspections should be reported upon and a written record maintained.
- All bait traps should be numbered and the corresponding numbered bait station must be in position. At every inspection the bait station should be re dated to confirm inspection and a plan showing the location of all bait stations should be available.
- Details and records of monitoring devices and electronic flying insect killers should be available.
- Details of all treatments and pesticides used including all toxicological data must be recorded in the pest control file and be available for examination.

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Waste Disposal

- The supplier should have a waste disposal system appropriate for the peak loads of waste and effluent of the plant.
- Waste materials must not be allowed to accumulate in production areas but be regularly removed to an area distant from food processing.
- Waste food and waste packaging should be kept separate. Any skips used should be sited on hard standing as far as is practical from the building. Packaging waste should be divided into glass, metal, wood and plastic to aid recovery under the Packaging Waste Regulations.
- Waste food skips should be covered at all times. They must be cleaned thoroughly after emptying.

Distribution

- All vehicles used must be clean, regularly maintained and in good repair. The vehicles must be free of odours, taints, and any material likely to cause product contamination. Inspections should be carried out and documented prior to loading/unloading.
- Where appropriate, temperature monitoring devices must be operational and records should be kept.

Summary

At the end of the audit there should be a debriefing session, at which the auditor will present a summary, giving an overall rating for the factory and detailing those areas where improvements are required. The manufacturer should use this session constructively, to discuss the points with the auditor and agree an action plan.

Finally, the reply to the written report should be within the required timescale and cover each point.