HACCP INTERNATIONAL FOOD SAFETY CERTIFICATION PROGRAMME

HACCP INTERNATIONAL

FOOD SAFETY BULLETIN

ISSUE 2 2010

KITCHEN EXHAUST SYSTEMS
Halton show us that its more than just hot air

HAND DRYERS
Dyson Airblade™ conquer the hand drying problems with excellent design

ALLERGENS
Practical control methods

NEW UK OFFICE
HACCP International's new European chief

Halton

Produced by HACCP International, a leading provider of food safety services - www.haccp-international.com

HACCP INTERNATIONAL
FOOD SAFETY PROGRAMME
CERTIFICATION

The only hand dryer that's HACCP-approved.

Other hand dryers are unhygienic. They recycle dirty air, blowing it onto your hands. The Dyson Airblade™ hand dryer works differently.

A HEPA filter removes over 99.9% of washroom bacteria from the air before it reaches hands. It also works in just 10 seconds, so people leave with dry hands that spread 1,000 times less bacteria than damp ones.

For more details, visit **www.dysonairblade.com**

dyson airblade

The fastest, most hygienic hand dryer.

The HACCP logo is a registered certification mark of HACCP International.

WELCOME

to the second edition of our international bulletin

We are pleased to be distributing the second of our bi-annual international journals. These bulletins are designed to bring together opinions, facts and information on food safety issues from around the world. We particularly address the role of non food products and services and their impact upon food and beverage processing. We also look at technical and food safety issues that affect our industry and the safety of our food.

This journal also gives an opportunity of promotion for those non-food products that carry the HACCP International certification mark and you will find those advertised within and listed on pages 26 and 27.

Please feel free to comment or submit editorial. We have a wide range of interested readers across the globe and would like to hear from anyone who would like to make a contribution. By the way, a regional issue of this magazine is also distributed in Australia.

Clive Withinshaw,
HACCP International

COMMENT

Non-food products and services come under the microscope

The 'fitness for purpose' of non-food materials is best identified through recognised 3rd party certification

HACCP based food safety programmes are now common place and a pre-requisite to supply in most international markets. As well as being implemented within the facilities of food manufacturers and handlers, they are now commonly found in associated processes such as ingredient manufacture, packaging and logistics.

Eliminating food safety risk from these sources has been vital to a holistic approach to food safety. It is now recognised that non food products and services that have a significant interface with food processing and handling need to be addressed in terms of risk.

> 'non-food products and services that have a significant interface with food processing and handling need to be addressed in terms of risk'

Equipment, consumables, and non-food materials have long been identified as a source of risk - and some with a high profile! Often manufactured for a variety of users or general application, it is important the food industry can identify those products that are particularly appropriate and meet the 'fitness for purpose' requirements of the food industry.

Almost all recognised food industry operations are now particularly conscious of their food safety responsibilities and need assurance as to the suitability of products that are introduced to their facilities and procedures. Lighting, pneumatics, cleaning and cleaning materials, pest control, flooring and fit out are all good examples of items that can have a significant impact on food safety and must be identified as 'fit for purpose' prior to use.

In recognition of this risk, The British Retail Consortium's 'Global Standard for Food Safety – Issue 5' now requires food handlers that operate to that standard to have in place a process that ensures all items of equipment in direct contact with food have "Certificates of Conformity" (COC) or other evidence to indicate suitability for use. In reality, this process of due diligence must extend to all products and services that have a significant interface with food processing and handling. Indeed, any HACCP plan meeting international standards requires the food processor to ensure that such risks are addressed.

> The HACCP International certification mark is well recognised in this regard

3rd party food safety certification for such products and services is increasingly used to manage this risk and demonstrate conformity in respect of key food market products. The "HACCP International" certification mark is well recognised in this regard offering manufacturers, distributors and, importantly, their food industry customers, a 3rd party assessment and COC, issued by an independent organisation of food safety experts.

HACCP INTERNATIONAL FOOD SAFETY PROGRAMMES CERTIFICATION

Contact for more information on this or any other article in this magazine, to submit editorial comment or a free subscription please email : **ifsb@haccp.com.au**

For more information about HACCP International's services please email : **info@haccp-international.com** or contact one of our regional offices

HACCP International (Europe)
Richard Mallett, Director – Europe
T : +44 (0) 1227 731745 E : **richard.m@haccpeurope.com**

HACCP International (Asia)
Bill Simos, Managing Director – Asia
T : +852 2824 8601 E : **bill.simos@haccpasia.com**

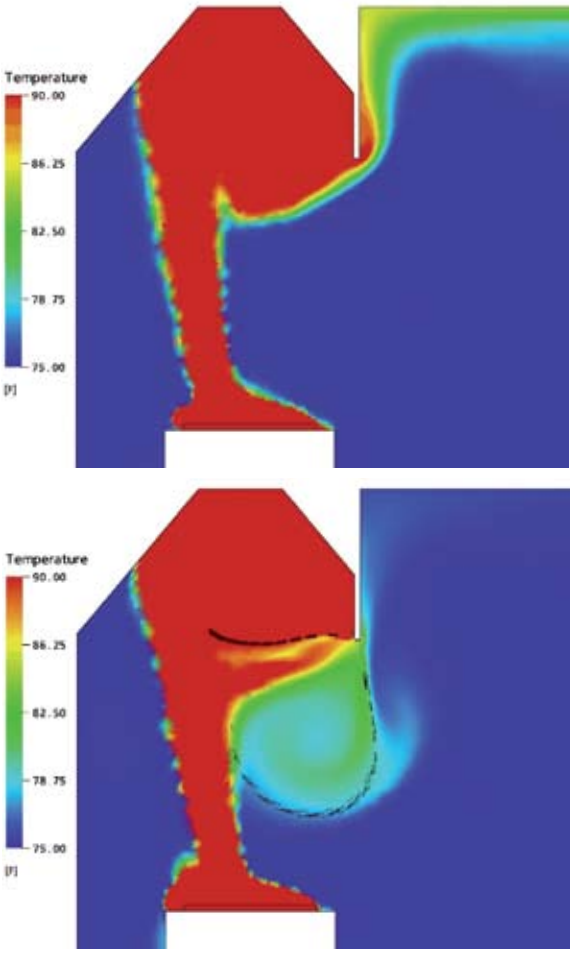
HACCP International (Australasia)
Clive Withinshaw, Director – Australia
T : +61 2 9956 6911 E : **jcw@haccp.com.au**

The Impact of Exhaust Ventilation on the Commercial Kitchen, Food Safety and HACCP

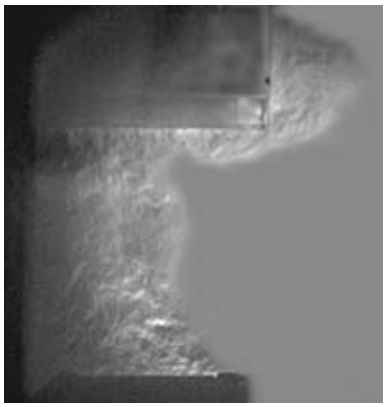
Although commercial exhaust systems are commonplace in foodservice establishments, it is easy to overlook the role they play in food safety. Exhaust systems that do not capture and contain cooking effluent allow grease and contaminants to accumulate on surrounding surfaces and floors, creating unhygienic conditions and safety issues like slips and falls.

Balance of Supply and Exhaust:

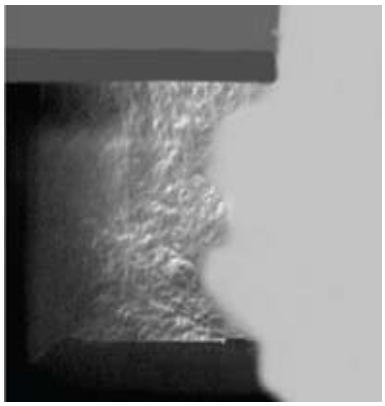
Supply side air flow in a commercial establishment is based on the amount of exhaust required to remove effluent from the commercial cooking process. This amount of exhaust air is predicated on the type of cooking equipment utilized by the establishment, the volume of food produced by the establishment, and the efficiency of the commercial exhaust system utilized in the application. Not all exhaust hoods are created equal. Some systems capture and contain cooking effluent at lower flow rates than others. The design of the exhaust hood is an important factor in this capture efficiency.



High efficiency hood (bottom panel) improves the capture and contaminant compared to standard exhaust hood (top panel).



Standard hood heat spilling into kitchen environment.



High efficiency hood capture and containment.

(Photos taken with a Schlieren camera)

In the USA, exhaust hood system efficiency can be tested by using the American Standard Test Method (ASTM) 1704. This method presents a standardized challenge to exhaust equipment and verifies the capture and containment capabilities of different systems at given air flow rates.

The determination of exhaust volume for a commercial exhaust hood begins with the type of cooking equipment being used by the establishment. A gas char-broiler (griller or barbeque plate) demands higher exhaust flow rates than an electric broiler and an establishment specializing in beef will have higher flow rates than one specializing in chicken or fish. Many companies offer commercial software to determine the flow rate required for capture and containment based on the cooking equipment utilized due to the menu selection of the establishment.

A properly balanced restaurant will strive for neutral conditions. This means that the building is neither under positive nor negative pressure. Replacement air should be introduced to the kitchen area in combination with transfer air from the dining room. Proper balance in the kitchen will produce an approximately 10% negative pressure with surrounding spaces to insure that odor does not migrate to those spaces. Demand control systems mounted within the commercial kitchen hood system can sense the position of cooking equipment and vary the exhaust and supply rates of the systems, yielding energy

reductions, thus reducing carbon footprint for the establishment. In establishments with poor replacement air ratios, negative pressure makes it hard to open outside doors. However, when these doors are open, air rushes in, bringing contaminants that can affect the safety of the food processing zone.

Air Temperature Impacts Safety, Productivity and Bottom Line

Temperature control of facilities is critical in certain operations for food safety and always important for operator comfort. It has been estimated that a 2.2°C/4.0°F temperature increase in a commercial food service establishment reduces worker productivity by 10%. That loss in worker productivity can be traced right to the establishments' bottom line. Increased turnover impacts training costs, while warm dining areas impacts the patron's length of stay. The proper sizing of air conditioning units depends on the outside design degree data, the amount of air being exhausted from the building, and the space requirements of the establishment. In warm climates un-tempered (not cooled) replacement air strategies for kitchens are strongly discouraged. Air intakes, placed on the roof of the building can be as much as 11°C/20°F hotter than surrounding air, pumping this hot air into the kitchen, resultsing in uncomfortable working conditions and warm environments which support bacterial growth, as humidity is pumped in along with the hot air.

The Importance of Maintenance

Commercial exhaust systems are made to remove grease and particulates from the exhaust air stream. The amount of particulates removed depends upon the efficiency of the hood's filtration system. The amount of maintenance required for the system depends on the volume produced by the establishment. For every 1000lbs/450kgs of beef cooked on an under-fired gas char-broiler, 55lbs/25kgs of grease is emitted (33lbs/15kgs of particulate and 22lbs/10kgs of vapour). Grease particulates greater than 20 microns in size fall from the exhaust air stream. Of the 55lbs/25kgs of grease emitted, 14lbs/6kgs is greater than 20 microns in diameter. This data is based on hamburger patties weighing .33lbs/150g, 5in/12.5cms in diameter and with a fat content of 20%. If weight, diameter, or fat content increase, grease emitted from the cooking process also increases. Therefore, the frequency of wipe-down of the hood interior and maintenance of the grease collection vessel to mitigate the risk of bacterial cross contamination is based upon the fat content and medium utilized in the cooking process, and the volume of product cooked within the establishment. Filtration efficiency and differing methods of grease removal are a subject for an article unto themselves, however, there are test methods available to determine the extraction efficiency of mechanical grease extractors, and reliable manufacturers should have data available for those interested when purchasing an exhaust system.

The above are just a few critical factors to consider when designing a commercial kitchen ventilation system to achieve food safety and ensure HACCP food safety programmes are not compromised. Designers and end-users should question and ascertain manufacturer's expertise in these areas during the selection process for a successful foodservice installation.

DEMAND THE BEST

Bell LABORATORIES, INC.

Protecta®

Contrac®

Ditrac®

Trapper®

Used Globally, Trusted Locally

www.belllabs.com

Bell LABORATORIES, INC.

THE WORLD LEADER IN RODENT CONTROL TEFCHNOLOGY

Madison, WI 53704 USA • www.belllabs.com

HAND DRYERS – DO THEY DO THE JOB PROPERLY?

THE DYSON AIRBLADE™ TACKLES THE ISSUE HEAD ON

Dyson, until now, most famous for revolutionising the domestic vacuum cleaner market, have recently arrived on the doorstep of the international food industry with a new product that will cut a swathe through the hand drying debate that has been raging for so long.

The Dyson Airblade™ hand dryer, while revolutionary in its design and process, has a familiar form which is easily associated with the creative and unconventional designs of British engineer, James Dyson. However, great lines are not really the story here.

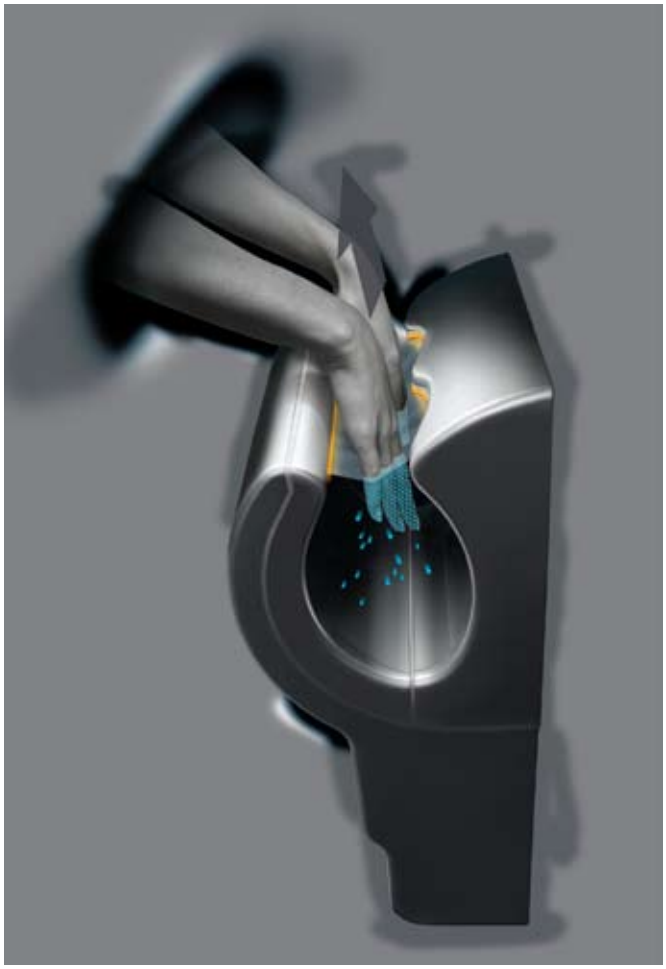
For many years, the pros and cons of air drying hands as opposed to the use of paper towels has been the subject of debate amongst Quality Assurance, Environment and Food Safety Managers. Arguments have abounded in favour of one system over the other and much of the controversy has centred on air dryers taking too long to perform their function and the ill effects of high pressure air in toilet areas. On the other hand (no pun intended), paper towels have been the cause of blocked drains, overfilled disposal containers and their absence, for whatever reason, is also an all too common problem.

> For many years, the pros and cons of air drying hands as opposed to the use of paper towels has been the subject of debate

In recent years, university and other research papers have profilerated on this subject, a number of which have been sponsored by interested parties. Regardless, the research conclusions, while varied from time to time have always centred on three main topics – efficacy, time and air quality. There seems to be little doubt that the Dyson Airblade™ has addressed all these key issues head on and wrapped its own solution in a functional and good looking body.

The Dyson Airblade™ has a hand drying time of 10 seconds. Other hand dryers require users to attend to the process for more than double that time. This has often proved too long for many users who are prone to abandon the process half way through - with resulting damp hands. However, a 10 second action is very much more likely to ensure correct usage. This significant reduction in time comes about through a revolutionary approach to air processing and well designed hand slots which ensure correct application by the user. Significantly, this air processing does not utilise a heating element and claims an energy saving of up to 80% when compared with other hot air dryers.

CONTINUED ON PAGE 08



The second major feature of this machine is the air filtration system. This machine delivers an air current speed of over 375mph/600kmh which is remarkable enough in itself but it does so having passed that air through a HEPA filter. The HEPA filter captures 99.9% of bacteria in the incoming air used by the machine. A major concern of the more conventional dryers is that they circulate airborne bacteria in such a way as to leave more bacteria on the body or clothing of the bathroom users. The Dyson Airblade™ contributes to capturing the airborne bacteria from the room and ensures the air blown on to the hands themselves is more hygienic.

In terms of efficiency, the Dyson Airblade™ undoubtedly offers an effective hand drying solution. It eliminates the major concerns that the food industry has had with electric hand dryers and offers a real food safe alternative to other methods.

Earlier this year, the Dyson Airblade™ hand dryer was awarded a red dot design award for high design quality in Germany. The red dot awards are one one of the most prominent product design competitions worldwide. This win follows numerous awards for design, hygiene, energy efficiency and environmental sustainability that this product has received since its international debut.

While the machine is quite new to Australia and the Australian food market, it has been available for some time in Europe. Many food businesses have installed the machine and report favourably on their performance. Simon Evans, the amenities manger at Cargill Meats Europe said 'Using paper towels was costing £18,000 per annum. There are a lot of hand dryers on the market and it was important for us to find a time-saving alternative'. Cargill installed the Dyson Airblade™ hand dryer for a trial period and said afterward, 'We were very

Earlier this year, the Dyson Airblade™ hand dryer was awarded a red dot design award for high quality design in Germany.

impressed. Using the Dyson Airblade™ means we save money on wasted paper and we also save on man-hours'. At Macrae's seafood plant in Scotland, Steve McLean, the facility's engineering manager estimates the saving as being £20,000 per annum and adds. 'The units look great, they're quick and efficient".

Dyson recently submitted the machine for certification and endorsement by HACCP International. Industry experienced, food technologists at HACCP International have reviewed the machine, its design, performance and efficiency and have found it to offer a food safe hand drying process. Says Karen Constable of HACCP International, who headed the research into this product, "This is not to say that other methodologies are not appropriate to the food industry, however the Dyson Airblade™ certainly addresses the concerns we have with some electric hand dryers and is able to offer a very appropriate solution. We look at many new products and initiatives that are aimed at the food market and it is encouraging to see a new product that is economical, functional and also hygienic.

packaging
metering • sizing

enmin
VIBRATORY EQUIPMENT
www.enmin.com

SOME GUIDELINES FOR HACCP PROGRAMME VALIDATION

Operators often misunderstand the process of validation in HACCP Programs. These guidelines might help clarify the process for some.

Definition

Validation is the process of demonstrating via scientific or technical data that the HACCP system, when properly implemented, is capable of adequately controlling the identified hazards in order to produce a safe product.

The scientific or technical justification may be:

- an article from a scientific journal
- a documented challenge study
- In-house data e.g. observations, measurements, test results that demonstrate the process is capable of meeting the scientifically documented parameters.

The documentation should identify the hazard, including the level of hazard prevention and identify which processing steps will achieve this.

Who Validates the HACCP Plan?

- The HACCP Team
- Any qualified individual (relevant training and/or experience)

What to Consider When Carrying Out the Validation?

- Do the identified CCP's control the hazards?
- Are the Critical Limits appropriate?
- Do the monitoring methods and frequency provide adequate control?
- Do the Corrective Actions properly address the affected product/process and correct the deviation from the critical limit?
- Review of consumer complaints?

When Should the HACCP Plan be Validated?

- When the HACCP Plan is first developed
- Changes in product description e.g. intended use or consumer
- Changes in process flow
- Changes in raw materials, including the source
- Changes in product formulation
- Changes in processing methods
- Changes in packaging
- Changes in finished product distribution systems
- Recent industry recalls of similar product
- New or emerging hazards
- Recurring deviations
- Food safety consumer complaints
- Regulatory agency recommendations

HACCP INTERNATIONAL'S UK OFFICE TO SERVICE EUROPE

Welcome to the new Director of European affairs, Richard Mallett

HACCP International has opened a regional office in the UK. This office will be responsible for managing technical and commercial affairs in the European region. Richard Mallett of MQM Consulting has taken up the role of 'Director – Europe' for HACCP International combining HACCP International's specialist services and certification and endorsement programme with MQM's current food safety and training operations. Richard is supported by an expert team of food scientists in the UK as well as the resources of HACCP International staff in Asia, Australia and, in due course, the USA.

The HACCP International office is in the south of England, close to London and gateways to other major European centres. This base allows HACCP International to offer a full suite of services to the European market as well as supporting those international companies which have offices in the region.

Richard Mallett, European Director of HACCP International

Coupled with other regional offices in Australia and Hong Kong, HACCP International now offers truly global coverage and food science expertise to the international food, beverage and pharmaceutical markets.

Richard Mallett is a Pure Microbiology graduate from the University of Leeds and has worked for a number of well known companies including Rank Hovis McDougall and BioMerieux UK. He is an accredited trainer, a BRC auditor and has considerable food technology and HACCP programme development experience. Richard sits on a number of influential technical committees in the UK and is very familiar with the food safety requirements and expectations associated with both food and non food products in today's complex food industry.

HACCP International's contact details are as follows:
3 Aspen Road, Chartham Downs,
Canterbury, Kent, CT4 7TB, United Kingdom.

T : +44 (0) 1227 731745
E : richard.m@haccpeurope.com
F : +44 (0) 8717 145751

Allergens – Practical Control Measures

Some facts and figures

Look closely at the food safety alerts released on the U.K.'s Food Standard Agency's website. Close to 100 alerts were issued in total in 2009, of which over 50% were specifically allergy alerts! The allergy alerts are issued when foods have to be withdrawn or recalled if there is a risk to consumers because the allergy labelling is missing, is incorrect or there is some other food allergy risk. The figures are perhaps surprising considering the legislative pressure that has been applied to food processors by the European Union, requiring, back in 2005, the mandatory labelling of 12 specified food allergens. That list has now extended to 14 and more are potentially on the horizon.

In 2006 it was estimated that over 1.5 million people in the U.K. alone were intolerant or allergic to one or more food types. It can be no wonder that the enforcement authorities throughout Europe take this issue very seriously and that a food processor's allergen management programme comes under close scrutiny during inspections. The issue is also tackled by the major European food safety technical standards including the British Retail Consortium's (BRC) Global Standard for Food Safety, adopted by nearly 10,000 food processors worldwide. Within that Standard there are stringent, mandatory clauses requiring a processor to perform risk assessment and adopt controls to ensure allergen control. The aim is to reduce the number of allergen related incidents that require withdrawal or recall from the market. Loss of allergen control can arise from three main failures: In 2006 Food Standards Agency figures demonstrated that 56% of all U.K. recalls arose from food incorrectly labelled, 28% arose from allergen cross contamination and 16% from use of the wrong label or packaging.

Practical allergen controls

A HACCP based allergen risk assessment programme is key to allergen management and control. As an example of this approach the BRC Global Standard for Food Safety requires risk assessment to establish the presence and likelihood of contamination by allergens, with systems implemented to ensure integrity and compliance with specification throughout the supply chain. The following areas, managed as HACCP pre-requisite procedures, can all help to reduce the potential for allergen misinformation or contamination:

1. **Supplier and ingredient control** requires the review and management of supplier ingredient specifications to identify those which intentionally contain allergens. One of the potential pitfalls here is reformulation of the ingredient by the supplier without the provision of amended and updated specifications. Knowledge of the supplier's allergen management procedures is also a factor and can be facilitated by something as simple as an allergen management questionnaire to determine allergen control procedures on the supplier's site and therefore the overall risk of allergen cross contamination by the supplier. This can be followed, as necessary, or where information is scarce, by a formal on-site allergen audit.

2. **Controlled on site food storage** by the processor requires segregation or other validated control to ensure contamination of non allergenic foodstuffs or ingredients by allergens is eliminated or reduced to a safe level. For very high risk, low threshold allergens such as nuts this might require entirely separate storage areas. For foodstuffs more likely to be allergens is eliminated or reduced to a safe level. For very high risk, low threshold allergens such as nuts this might require entirely separate storage areas. For foodstuffs more likely to be the cause of intolerance, rather than severe anaphylactic shock, such as gluten containing foods, it may be sufficient to use separate shelves or racks, within common storage areas.

3. Segregated handling or processing of foods, during production, may require entirely separate processing halls or even factories, especially in the case of high risk allergens such as nuts. Otherwise, and where risk assessment allows, the processor can employ time separation so that allergen containing foods are made at the end of the production day and this activity can be followed by a deep "allergen clean down" which might not be possible during shorter, between-batch production breaks. Test kits and methods are being developed now to measure residual allergen traces following clean down and to help with validation of this control.

4. Staff awareness and staff movement control is a key area to consider. Higher risk allergens such as nuts may have to be handled, not only in separate areas, but by separate, visibly identifiable staff, wearing specific, often colour coded protective clothing. Staff training should always now encompass an element of allergen awareness and competence with regard to allergen management procedures. This training must be provided before food handling duties commence. Staff should be made aware of the types of food allergens that exist and that are legislated for. They should be made aware of potential sources of allergen cross control and misinformation such as use of the wrong labels or packaging.

5. The control of labels and packaging, especially during product change-over, can prevent a foodstuff entering the market with incorrect or absent allergen warnings. This is a supervisory issue requiring a check that labels and packaging have been correctly changed over when a new product is being packed. The information that must be placed on labels and packaging, with regard to allergens, is a technical management and new product development issue. Common pitfalls are the use of a new or reformulated ingredient, new allergens being handled on site, new equipment being used, new layouts implemented, new production schedules drawn up or new cleaning regimes being put in place. Just as in Principle 6 of Codex HACCP, a review of the allergen risk assessment is crucial to ensure that changes to the allergen status of a product is identified and reflected on the label and packaging.

6. Allergen audits can be implemented as part of the internal auditing process. The audit should ideally pick a final, packaged product and trace back through all storage, formulation, processing and packaging steps to the ingredients used, ingredient specifications held and the information supplied by the supplier in regard of their allergen controls. In this way the risk of allergen contamination and inclusion of intentional allergens can be validated against the allergen declaration and "may contain" information provided on the label or packaging for your chosen product.

7. Equipment selection and use, together with materials of construction and design of surfaces such as floors and walls is often overlooked, even when all other allergen management controls are in place. Yet this control is just as key as the others. For instance, as a rough guide, the higher the IP rating on equipment the less likely it will be for particles of food, some of which may be allergenic of course, to become trapped. In more general terms equipment and materials selection must be influenced by cleanability and accessibility. Ask yourself the following question – Can I access all surfaces easily and are they designed to facilitate a deep "allergen clean down" to prevent them becoming a source of allergen cross contamination? The same principle extends to cleaning equipment. In general, those surfaces and pieces of equipment, which can be cleaned and then disinfected to reduce to safe levels bacteria such as Listeria monocytogenes, should be at minimal risk of being a source of allergen contamination.

The future

It is clear that properly assessed and controlled allergen management can drastically reduce the chance of allergen related incidents. What can we expect next? Well, the European Food Safety Authority has for some while being directing research into allergen threshold levels. The results of this will drive forward the application of allergen thresholds to allergen management guidelines and even labelling legislation. Almost certainly this will require a review of current allergen risk assessments. Look at EC Regulation 41/2009 which applies from 1st January 2012. Foods that have been especially processed to reduce gluten content shall not contain gluten exceeding a level of 100mg/kg as sold to the consumer. They will be required to be labelled and advertised as "very low gluten" foods unless the gluten level is less than 20mg/kg in which case they may be labelled and advertised as "gluten free". These quantified units must be considered as part of the risk assessment. This, and future threshold developments may well have some consumer and industry benefits. For the allergic or intolerant consumer a reduction in unnecessary "may contain" warning statements will increase choice. For industry, some clear, quantified guidelines will undoubtedly help in the quest to devise sensible risk assessments and control pitfalls these include the use of a new or reformulated ingredient, new allergens being handled on site, new equipment being used, new layouts implemented, new production schedules drawn up or new cleaning regimes being put in place. Just as in Principle 6 of Codex HACCP, a review of the allergen risk assessment is crucial to ensure that changes to the allergen status of a product is identified and reflected on the label and packaging. ∎

Food Safety and Energy Efficiency that make business sense:
Click on www.halton.com and check how innovations from Halton increase your kitchen safety and business profitability.

Kitchen Ventilation: Food Safety meets Energy Efficiency.

Kitchen ventilation systems play an active role in food safety and HACCP. Halton's integral designed ventilation canopies and ventilated ceilings are equipped with patented innovations leading to:

- A total capture of contaminants and grease with lower airflow rates due to the Capture Jet technology
- A better temperature control of facilities for an enhanced food safety and comfort
- Reduced maintenance costs and hygiene hazards due to the Capture Ray grease treatment technology
- A unique association of food safety with the greatest potential for energy savings, for all types of kitchen.

The Capture Jet and Capture Ray technologies are just a flavour of Halton High Performance Kitchen solutions. Visit www.halton.com to discover them.

Enabling Wellbeing

Halton

THE GLOVES ARE ON....

HACCP International's Karen Constable discusses the pros and cons for wearing gloves in relation to food safety and worker protection.

Gloves have two main purposes in the food industry; to protect food from contamination from human hands and to protect workers from occupational hazards, such as microorganisms, cuts, chemical burns and thermal shocks. In some instances a glove performs both of these roles at the same time.

Gloves purchased for protecting food are usually single-use or disposable gloves, whereas gloves for personal protection purposes are more likely to be re-useable. When choosing gloves, factors to consider include thickness, durability, elasticity, exterior texture, coatings, antibacterial additives and interior linings or treatments.

Disposable gloves are commonly made from latex, vinyl, nitrile or polyethylene co-polymer, with vinyl and polyethylene gloves being the cheaper options. Polyethylene (PE) gloves are very loose fitting, easy to tear and not suitable for applications involving heat. Vinyl (PVC) gloves provide a snugger fit, which improves dexterity; however they also have low durability. Nitrile and latex gloves are more durable and have good elasticity, which provides comfort and dexterity. Each of these different glove types has different chemical resistance properties, with PE and vinyl gloves showing little resistance to alcohol, and latex unsuitable for use with animal fats and oils.

Re-usable gloves for food contact applications are most commonly made from natural rubber. Nitrile re-usable gloves are a more expensive option, but provide added advantages, such as better strength, cut resistance and chemical resistance.

While the use of gloves can provide benefits to both food safety and occupational safety, there are potential food safety risks associated with their use. The foremost risk is one of cross-contamination from a dirty glove surface. Most consumers are familiar with the sight of a gloved food handler collecting cash at the sandwich counter. A common phrase among food safety experts is 'a clean hand is better than a dirty glove'.

The second risk to food safety is that of physical contamination of food by whole gloves or pieces of broken glove. Blue coloured gloves are a good choice for processing applications where gloves could get into mixers, vats or conveying systems.

The third risk to food safety is that of chemical contamination caused by migration of chemicals from the gloves into the food that they contact. Due to the nature of the compounds found in gloves, migration is more likely to occur when gloves are in contact with fatty, acidic or alcoholic foods for more than a few seconds.

Control of microbial and physical contamination hazards from gloves is easily achieved using good hygiene systems, food handler training, and GMP protocols. However, hazards arising from chemical contamination are not generally well understood.

Food safety laws state that equipment for food contact must be 'made of material that will not contaminate food', however more detailed requirements are not described in the legislation. In practice, most glove suppliers use the requirements of the US FDA as a guide to choosing materials which are acceptable for food contact use. The US FDA's Code of Federal Regulations provides long lists of materials which are permitted for use in food contact articles, including gloves. Additives used during glove manufacture, such as plasticizers, vulcanizing agents and accelerators are also regulated. Plasticizers used in the production of PVC items have attracted much negative attention lately, with a commonly used plasticizer now classified as a toxicant by the EU.

The Code of Federal Regulations and directives of the European Union also define acceptable migration limits for food contact materials. Migration tests typically involve immersing the material in a solvent or a food simulant for given times and temperatures and measuring the level(s) of extractives.

Choosing gloves which meet the requirements of the US FDA or the appropriate EU directives can provide assurance that chemical migration will be minimised. However, when inspecting marketing material for gloves, be aware that many of the standards, directives and regulations pertaining to gloves are specific only to parameters such as physical performance, dimensions, tensile strength and dermatological reaction risks. It is possible to purchase gloves which conform with many quality and performance standards but which are not compliant with chemical migration regulations.

More or Less Food Safety Regulation in the USA?

by Andy Weisbecker

This article gives the reader a United States perspective on food safety legislation. Andy Weisbecker is a lawyer with the well-known law firm Mahler Clark and has been practicing commercial and tort litigation in Seattle since 1983. He has substantial experience in the resolution of major personal injury and product liability claims, and with related insurance coverage issues. He has represented injured plaintiffs in many states across the country.

During the past weeks, a few news stories have highlighted the distinctions between two different legislative approaches to address the issue of food safety. There is little question that the public is becoming increasingly aware and concerned about the safety and quality of food. The impetus is accordingly growing across the country to get the pending FDA Food Safety Modernization Act, S. 510, which would give the FDA more authority and money, finally passed and enacted into law.

Opponents, however, argue that this legislation favours an industrial agricultural system, and that local food systems provide significant food safety benefits. In fact, in Wyoming and in Florida, state legislatures were considering bills to lessen the regulation of local "cottage" foods, with their proponents arguing at least in part that this approach would increase food safety.

An increasing number of Americans is justifiably becoming concerned about outbreaks of illness linked to contaminated food, and about the capacity of our existing food safety system. A September 2009 survey among likely voters across the nation found that about 9 in 10 support the federal government adopting additional food safety measures. Overall, 58 percent of voters were worried about bacterial contamination of the food supply--with about a third saying they worry "a great deal." The survey showed that American voters overwhelmingly believed the federal government should be responsible for protecting the food supply, and that the voters supported new measures to ensure it has the authority and capacity to do so.[1]

The public's increasing concern about food safety was recently validated by the results of a study on the cost of acute foodborne illnesses in the Unites States. The study by a former U.S. Food and Drug Administration (FDA) economist estimates the total economic impact of foodborne illness across the nation to be a combined $152 billion annually. The Centers for Disease Control and Prevention (CDC) estimates that approximately 76 million new cases of food-related illness--resulting in 5,000 deaths and 325,000 hospitalizations--occur in the United States each year. This recent study used an FDA cost-estimate approach: health-related costs were the sum of medical costs (physician services, pharmaceuticals, and hospital costs) and losses to quality of life (lost life expectancy, pain and suffering, and functional disability). The study ranked states according to their total costs related to foodborne illness, and determined the annual cost per case for an individual, which was approximately $1,850 on average per illness nationwide.[2]

Many have been pressing for changes in the food safety system to enhance the regulatory and enforcement authority of local, state, and federal agencies to inspect, investigate, and recall food products as needed. A report released in April 2009 called for leadership by Congress and the U.S. Department of Health and Human Services (HHS) to build an integrated national food safety system to make effective use of the best science and all available public resources to prevent foodborne illness. The report noted progress in how federal, state, and local agencies collaborate to detect foodborne outbreaks, but also found that state and local agencies are hampered in their response to and prevention of outbreaks by lack of focused federal leadership, chronic underfunding, wide disparities in capacity in all areas of food safety, and barriers to information sharing and collaboration. The report then made 19 specific recommendations for strengthening state and local roles, and for building an integrated national food safety system that works effectively to prevent foodborne illness.[3]

An increasing number of Americans are justifiably becoming concerned about outbreaks of illness linked to contaminated food

In October 2009, the American Public Health Association (APHA) recommended legislative changes to establish new authority to strengthen the food safety system. The APHA found that FDA lacks the authority to require tracking, maintenance, and access to records on foods, including fresh fruits and vegetables. The FDA does not have the authority to mandate a

recall when a food is identified as contaminated or is a source of an outbreak. Also, limited funding at all levels restricts the ability of state and local health agencies to conduct robust prevention and surveillance activities. The APHA accordingly recommended legislation that would in part: improve coordination among local, state, and federal agencies to enhance surveillance, investigations, and response; implement national food safety plans, including testing, record maintenance, and reporting of positive contamination results; and authorize FDA mandatory recalls and tracebacks. The APHA finally supported food safety enhancement and modernization legislation then already pending in Congress.[4]

Most recently, "The Hill", a Capitol Hill newspaper, published several Op-Eds highlighting the bipartisan support for the pending FDA Food Safety Modernization Act, S. 510, and urging the Senate to act. Caroline Smith DeWaal, director of food safety at the Center for Science in the Public Interest, emphasized the broad, bipartisan support for S. 510, a bill that would increase the FDA's authority and capacity to regulate 80 percent of the food supply. Sen. Herb Kohl (D-WI), chairman of the Senate agriculture appropriations subcommittee, called for urgent action in his Op-Ed, stating that "The Senate must act this year to restore consumer confidence and ensure a safe and abundant food supply." Rep. Rosa DeLauro (D-CT), chairwoman of the House appropriations subcommittee, which oversees the USDA and FDA budgets, called for simplifying the food safety system by centralizing food safety activities into one agency.[5]

The biggest threats to food safety are claimed to be centralised production, centralised processing, and long distance transportation

In sharp contrast, however, recent headlines have also highlighted a quite different approach to the issue. This other approach in fact favors reducing food safety inspections, certifications, and similar regulations, advocating instead for the increased freedom of local producers to produce and market their products. State legislators in Wyoming and Florida have recently been working to enact similarly inspired "Food Freedom Acts".

House Bill 54, the Wyoming Food Freedom Act, passed out of a Wyoming House committee on February 18, 2010. The bill proposed to exempt all "cottage foods", or foods prepared in home kitchens, including potentially hazardous foods such as dairy products, canned foods, and sauces, from regulation. The stated purpose of the bill was "...to allow for traditional community social events involving the sale and consumption of homemade foods and to encourage the expansion and accessibility of farmers' markets, roadside stands, ranch, farm, and home based sales and producer to end consumer agricultural sales...".

Those in favor of the Wyoming Food Freedom Act claimed it would allow small farmers and food producers to sell direct to consumers without their need to spend the significant funds required to get proper certifications-a financial burden that can put small farmers and food producers out of business. As regards food safety, proponents argued that industrialized and inspected foods are no guarantee of safety, and that the highest quality, and most nutrient-dense food is the closest to the source. Also, those in favor of the bill claimed that community fosters responsibility, and that local producers who sold low quality and unsafe food would have to answer to their neighbors and would not be in business long.[6]

Critics, however, fear the increased risk for foodborne illness outbreaks if House Bill 54 passed into law. Those in opposition to the bill supported the inspection and licensing process in place because it allows inspectors to help cottage businesses minimize the risk of distributing foods contaminated with foodborne pathogens. Ultimately, they prevailed, and despite passing through the House Committee, the bill failed to pass through the Senate Agriculture Committee on February 26, 2010, effectively shelving the legislation, at least for this session.

In the meantime, in Florida, legislators are debating the merits of the proposed Florida Food Freedom Act. The articulated purpose of the Act is to initiate lighter inspection from USDA for small farmers. The Florida Food Freedom Act would define a single link food distribution chain that starts with the food producer, or the producer's agent, and ends with the consumer. The Act would then exempt that single link food distribution chain from the regulatory oversight that a longer, multi-layered food distribution chain would be required to have. Its proponents argue that the Act would allow family farms to remain profitable and viable, creating new local businesses and jobs, as well as feeding the growing demand for locally grown food.[7]

Advocates for the Act also claim that it would enhance food safety. They argue in part that the closer relationship between the producer and the consumer, including the producer's integrity and the consumer's interest in and knowledge of how the food is raised, harvested, and prepared, would provide sufficient oversight. The biggest threats to food safety are claimed to be centralized production, centralized processing, and long distance transportation. Small farms and local food processors would instead be part of the solution to food safety, as local food systems are inherently safer and more traceable. Additionally, the Florida Food Freedom Act would require all people selling directly to the end consumer to become certified food protection managers.[8]

It is likely that the substantial differences in these approaches for legislation to increase food safety are primarily a function of different political philosophies and economic agendas, as well as concern with the safety of food products. It is somewhat comforting, however, that the importance of improving food safety as a necessary goal is increasingly acknowledged and recognized, regardless of the diversity of means proposed to attain that goal. ▮ Reprinted with permission

REFERENCES:
1. Pew Charitable Trusts, Commissioned Survey: "Americans' Attitudes on Food Safety", September 2009. Available at www.makeourfoodsafe.org. 2. "Health-Related Costs from Foodborne Illness in the United States", Robert L. Scharff, March 2010, Produce Safety Project. Available at www.producesafetyproject.org. 3. "Stronger Partnerships for Safer Food: An Agenda for Strengthening State and Local Roles in the Nation's Food Safety System", Department of Health Policy at the George Washington University School of Public Health and Health Services, with the Association of Food and Drug Officials (AFDO), the Association of State and Territorial Health Officials (ASTHO), and the National Association of County and City Health Officials (NACCHO), April 17, 2009. 4. "Creating a Safe Food System for America", American Public Health Association, Issue Brief, October 2009. 5. "More Calls for Senate to Act on Food Safety", Helena Bottemiller, Food Safety News, Feb 26, 2010. 6. "Committee hears testimony on food freedom", Bill McCarthy, Wyoming Tribune Eagle, February, 17, 2010. 7. "Florida Farmers Anxiously Await Florida Food Freedom Act", Suzanne Richmond, Orlando Gardening Examiner, February 22, 2010. 8. "Support Florida Food Freedom Act", Farm-To-Consumer Legal Defense Fund, at the ftcldf.org website, last edited 2/26/2010.

SMC®

The Driving Force In Pneumatics

Supporting Food Safety With...

HACCP PRODUCTS

Valves - Pressure Indicators - Pressure Regulators - Tube - Fittings - Accessories - Vacuum Actuators - Flow Control - Filters - Instrumentation

Freecall SMC Australia: 1800 Pneumatics (1800 763 862)

SMC Pneumatics (Australia) Pty Ltd www.smcaus.com.au

Comedian reveals unsavoury truth of food production in UK

Is it any different in your country?

Alex Riley follows in the footsteps of Morgan Spurlock in exposing the less appetising aspects of food.

With his gangly frame and thick-rimmed spectacles, Alex Riley makes an unlikely assassin. Unfortunately for Britain's £230 bn-a-year food and drink industry, his wisecracks about its unsavoury practices in a new BBC TV series are little short of deadly.

In "Britain's Really Disgusting Foods", the dry-witted comedian and TV presenter checked out the nutritional content of low-budget meat, interrogated the sourcing of endangered creatures and generally gets in the face of food manufacturers purveying products of dubious environmental and nutritional quality.

Like Morgan Spurlock – the Super Size Me documentary-maker who humbled McDonald's by eating its food – Mr Riley asks awkward questions about what is served up to the public by grocery chains and catering outlets keen to provide products for customers "at a certain price point".

Unlike Mr Spurlock, he engineers products himself in a makeshift laboratory to expose the legal production and labelling tricks used by the food business. In the first show, he demonstrates how it was possible to make a legally saleable chicken kiev with 10 per cent chicken meat and a large amount of breadcrumbs, skin and other animal by-products and, with the help of an industry expert, raised the amount of "meat" on the label to 17 per cent.

He also discovered the secret of a microwaveable lamb shank that lasts for 12 months out of the fridge being sold by a cash-and-carry outlet promoted by Gordon Ramsay. The foul-mouthed chef, who in an episode of Kitchen Nightmares described the meal as "shit in a bag", later explained he no longer endorsed the company.

In a show on dairy products, Mr Riley looks at the use of hydrogenated fat by a grocery chain and the supermarkets' sale of "singles", which looked like processed cheese slices, and are sold in the cheese aisle but contain as little as 6 per cent cheese!

He also tackled the issue of unsustainable palm oil destroying forests. After he arrived at the UK HQ of one of the world's best known confectionery giants with five "orang-utans" and a tanker of "sustainable" palm oil, the chocolate-maker announced it would move to a certified supply by 2015.

In a third show which tackles the EU's Common Fisheries Policy and Nobu restaurants' sale of bluefin tuna, Mr Riley offerd to buy Japan's whale meat reserves.

BBC executives commissioned "Britain's Really Disgusting Food" after the success of an hour-long pilot in 2008 in which the Sheffield-born comic made his own low-budget pie containing a mix of cheap meat, fat, gristle and connective tissue.

By exploiting labelling regulations, Mr Riley's Pies carried a picture of his cloth-capped father, tractors and cows to suggest a wholesome rural image and were blazoned with the words "traditional", "GM-free" and, on account of coming from Reading, "Made in Royal Berkshire".

> "I don't believe what these food companies are getting away with. It's ridiculous!"

Its BBC Television debut attracted 2.6 million viewers. "If they get a million they're usually pleased, so it captured the imagination," recalled Mr Riley. "A lot of people came up to me in the street and said: 'I don't believe what these food companies are getting away with. It's ridiculous!'

Mr Riley says that because the shows are aimed at "a typically non-documentary audience" he uses stunts and humour, while maintaining a "journalistic sense." "It's also a way of approaching companies that they're not used to," he explained. "If you're coming to them with a Paxman style they're quite well versed in dealing with that, but when you're coming at them in a disingenuous approach and say: 'Well done for getting 47 per cent beef into a beef burger' they're not quite sure how to take it."

The programmes start with a raft of rumours and half-baked ideas, some of which turn out of to be myths, and some true.

"The lawyers have said it's the hardest programme to make in the BBC," Mr Riley said. "People do send long legal letters." He added: "The BBC is the only kind of place where you could make this show. In the dairy show we talked about chocolate advertising, you couldn't do that on a commercial channel because they're all big advertisers."

This article was written by Martin Hickman and first appeared in 'The Independent' newspaper in the UK and is reprinted with permission.

The HACCP Significance Matrix - A look at risk and likelihood

The first part of the HACCP Programme development project is the 'Hazard Analysis' (the "HA" in HACCP) also referred to as the risk analysis. Usually, in this process, identified hazards are evaluated in terms of risk; an assessment of severity and likelihood. People also call the function of these two factors 'significance'.

Severity is usually clearly understood by those developing HACCP programmes. It is the degree of illness or injury that can be sustained when the defined hazard manifests itself and the product is consumed. Most systems rate severity on a scale from low to high which roughly corresponds from 'No Injury' to 'Death'.

Often, it is the other concept of 'likelihood' which is often poorly understood and misrepresented in HACCP programmes. Most systems use a scale from 'Very Unlikely' to 'Very Likely' but sometimes these words are hard to visualize. I once read an explanation which used the example of a fly entering a room through a window to illustrate likelihood and I have applied this against a scale as follows;

A. **Very unlikely.** The event is almost impossible and has not occurred in the past. Our window can't be opened and there is a screen fitted.
B. **Not likely to occur.** The event is improbable but may occur at some time. There is no screen on our window and one day the glass could break allowing the fly entry.
C. **Could occur.** The event is possible and have heard of it occurring. The is no screen on the window and the window can be opened allowing the fly entry.
D. **Known to occur.** This event has happened before at our facility. Sometimes the window has been found to be open and the fly has been found inside as there is no screen.
E. **Very Likely to occur.** The event is almost a certainty and the hazard is present most of the time. There is no glass and no screen on the window and flies are found commonly on both sides.

As mentioned earlier, there are various scales and systems available and there is no problem with modifying a system to suit your operations and risk profile. An appropriate system will definitely improve the likelihood that your system will be technically valid and relevant.

Sensors that exceed IP69k - for extreme applications

Inductive and Optical Sensors for the harshest Food & Beverage industry requirements

THE ONLY HACCP ENDORSED SENSORS ON THE MARKET

- Simplify HACCP compliance
- Reduce machine downtime
- Save money

JohnsonDiversey ECOLAB FDA

Tollfree 1800 334 802 www.sick.com.au

SICK Sensor Intelligence.

Are your utilities a source of Hazard?

During the hazard analysis phase of a HACCP programme, the process steps and ingredients are typically reviewed in terms of hazards present, risk and controls. However, we often observe a disregard for other less obvious inputs into the process....especially utilities.

When reviewing or writing your programme, failure to assess the hazards associated with utilities could result in an audit non-conformance or worse, a food safety system failure within the operation.

Some issues for consideration in regard to utilities;

WATER

Is the water of appropriate standard for use as an ingredient or wash down water? Are appropriate systems in place to ensure reuse water cannot contaminate other streams? Can the supplier assure quality and is a failsafe system in place in case of a problem occurring which could impact upon the safety of your product? Are you treating process water on site and if so, are appropriate controls in place to ensure the correct treatment is actually occurring.

STEAM

Is live steam injected into the food product? A poorly serviced or malfunctioning boiler can allow boiler water (including the treatment chemicals) to contaminate the steam lines. Checks of condensate for conductivity can be used as a monitoring step if a significant risk is determined from this source. Pinholes in steam coils can also allow bleeding of steam into product so a procedure should be set up to check coil integrity on a routine basis.

AIR

Compressed air quality within food plants varies as widely as the uses of air within facilities. Originating from the compressors themselves, air can carry atomised lubricants which can contaminate food. This could occur through direct injection or in some cases, indirectly from discharge ports on equipment. Endorsed suppliers of equipment such as *Festo and SMC* can advise on appropriate filtration strategies for your systems.

POWER

Whilst the energy itself will not contaminate food, power can be a source of hazard. Monitoring systems, alarms, etc rely on power to operate. Power outages or the supply of dirty power can render these systems inoperative, exposing the process to failure through loss of control. Are backup systems available? Is the system failsafe?

Food Safety Information Council
www.foodsafety.asn.au
This organisation is industry run and is a disseminator of food safety news to consumers. It is a non-profit entity supported by the Australian Department of Health and Ageing, state and territory health and food safety agencies, local government, and leading professional, industry and community organisations. It aims to reduce the incidence of food poisoning in the community. The members list include organisations from many fields and they manage a number of worthwhile initiatives each year.

Specialist food industry lawyers in the land of litigation
www.marlerclark.com
Lots of food safety news here from the land of litigation! Marler Clark was established in 1998 bringing together top attorneys for the plaintiffs in the landmark litigation arising from the '1993 Jack in the Box' E. coli O157:H7 outbreak in the United States. It is now one of the nation's foremost law firms representing many victims of foodborne illness. Their news stories make for good reading.

British Retail Consortium – Food Safety Standards
www.brc.org.uk
The British Retail Consortium is a leading trade association representing a wide range of retailers from the large multiples and department stores through to independents. Commonly referred to as 'The 'BRC', this organisation has various food safety standards which are commonly adopted by food companies all over the world. HACCP International offers auditing services to BRC standards.

It's all about cheese
www.cheese.com
Too many cheeses! Too many tastes, smells and appearances to possibly remember. Help is at hand. This site has full details of virtually all real cheeses – leaving out the ' make-up names/regions and plastic cheeses!! Australia has 27 listed cheeses here, 25 more than Afghanistan but still somewhat short of France's 200.

The Ethicureans!!!
www.ethicurean.com
The new 21st century Epicureans. Not quite an "eat drink and be merry for tomorrow we die" ethos but more one devoted to correct food and material. They will espouse you to 'chew the right thing'. Ethicureans are devotees of SOLE food - Sustainable, Organic, Local and Ethical. Have a look, get informed and join the debate.

In this section are a few food safety and food related news snippets from around the world. Keep up to date with trivia as well as news!

From Singapore

Changi airport adopts HACCP plan as it meets world's best practise

As a result of a serious rojak poisoning incident last year that resulted in a number of deaths, Singaporeans are now acutely aware of food safety and the consequences of lapses in discipline Singapore have lead the world in terms of maintaining public health and that is now moving further ahead as the food court at Changi International Airport Terminal 3 achieves an international food safety standard, and has implemented a Hazard Analysis Critical Control Point (HACCP) plan. This food court is one of the first to achieve this certification in Singapore.

The Standards, Productivity, and Innovation Board, also known as SPRING Singapore, would like to see more food operators join the Food Safety Program which would uphold food safety standards and create more opportunity for export.

"We have a very strong reputation. When other countries' products are contaminated, a lot of countries, a lot of markets, will avoid their products. That is the time your quality will help you to command a premium", said Lee Yi Shyan, Minister of State for Trade and Industry. The food service providers really need to look at this as a part of the basic infrastructure that they have to compete internationally."

Managing director of the Kopitiam Group, Alden Tan, said, "Like any other system, even any other gadgets that you may have, usually the starting point will be little more costly. But as there are more people coming into the industry, there are more people doing it. By competition, the cost will be lower." Kopitiam Group is one of the 105 food companies in Singapore that benefited from SPRING Singapore's Food Safety Program. SPRING Singapore is aiming to have 200 food operators covered under the Food Safety Program by the end of this year and it is hoped that members from the Restaurant Association of Singapore and Food Manufacturers Associations will join the initiative.

NEA raises fines by 400%

Also in another food safety initiative in Singapore, with effect from 1 April 2010, food stall holders will face tougher penalties if they are caught flouting food hygiene rules.

The National Environment Agency (NEA) has raised the minimum fine by up to 400%, depending on the seriousness of the offence. From the end of this year, the demerit points system will also apply to main operators of canteens, coffeeshops and food courts. Repeat offenders and those who chalk up 24 demerit points within 12 months may be forced to shut down for until the premises is fit to resume opeations.To enforce the new measures, NEA will beef up the number of enforcement officers from the current 63 to 104.

From the USA

Michelle Obama urges industry to 'move faster, go farther'

By Caroline Scott-Thomas, (foodqualitynews.com)

Michelle Obama has urged industry to work faster on reformulating products to make them healthier for kids, speaking at a Grocery Manufacturers Association (GMA) this year

Mrs Obama launched the Let's Move campaign to try and improve the health of American children, encompassing making healthy foods available to children and parents, nutrition education, and an increased focus on physical activity. The First Lady praised GMA members for the progress they have made so far on reformulation and initiatives to reduce marketing of unhealthy foods to children.

"But I'm here today to urge all of you to move faster and to go farther, because the truth is we don't have a moment to waste – because a baby born today could be less than a decade away from showing the first signs of high cholesterol, high blood pressure, Type II diabetes, if he or she is obese as a child," she said.

Chairman of the GMA, Richard Wolford said that the food industry is "an enthusiastic supporter" of the 'Let's Move' campaign and that GMA members have already made strides to make children's products healthier.

He said in a statement: "In recent years, our companies have reduced calories, sugar, fat and sodium in more than 10,000 products. They have also enhanced the nutritional profile of many products with the addition of whole grains, fiber or other nutrients and created the informative and convenient 100-calorie pack.

"Food and beverage companies have changed the way they advertise and market their products – children under 12 now see significantly fewer food, beverage and restaurant ads on television. And at the same time, they are seeing more ads for soup, juice, fruit and vegetables."

Addressing the GMA Science Forum, Obama said: "We need you not just to tweak around the edges, but to entirely rethink the products that you're offering, the information that you provide about these products, and how you market those products to our children.

"That starts with revamping or ramping up your efforts to reformulate your products, particularly those aimed at kids, so that they have less fat, salt, and sugar, and more of the nutrients that our kids need."

Childhood obesity is at record levels, with 32 percent of US children and adolescents overweight or obese, according to statistics from the Centers for Disease Control and Prevention.

From the UK

Battery egg fraudster jailed

By Jess Halliday, (foodqualitynews.com)

The perpetrator of a scam to sell some 36 million battery eggs as free range in the UK has been jailed for three years and ordered to pay hefty fines. The case has prompted the introduction of more stringent traceability measures.

Keith Owen, boss of egg-packing firm Heart of England Eggs, was prosecuted by the Department of the Environment, Food and Rural Affairs (Defra) after an investigation showed he was importing battery eggs from France, Ireland, the Netherlands and Germany and passing them off as British, free-range, and organic.

The scam ran between June 2004 and May 2006, and according to our sister publication The Grocer some 36m eggs were falsely sold to supermarkets and other retailers as free range over this time.

It is not thought that the eggs were sold to food ingredient suppliers and manufacturers, but to consumers directly. However the issue shows up the importance of traceability at all levels of the food supply chain. UK retailers have stopping or phasing out the sale of battery eggs for a number of years, ahead of a ban due to come into force in 2012.

Guilty plea

Owen pleaded guilty of the fraud, which Defra has said is the largest it has ever encountered. A Worcester Crown Court Judge Toby Hooper QC said the 44-year-old defendant had abused the ''well-intentioned" trust of the public. In addition to the jail sentence, Owen was ordered to pay £250,000 in costs and a £3 million confiscation order. He has 12 months to pay the latter or face a six-and-a-half years more in prison.

Case cracked

Owen sought to cover up the rotten trick by creating a false paper trail of documents and invoices. But he was found out after a number of people reported their suspicions – including some lorry drivers who picked up loads of eggs from the company.

Detectives investigate poisoning attempt

Elswhere in the UK, an investigation has been undertaken at one of Britain's most prestigious private schools after a member of staff was arrested on suspicion of trying to poison the pupils' soup. Detectives were called to Stowe School, whose former pupils include billionaire Virgin Group founder Richard Branson, Prince Harry's girlfriend Chelsy Davy and several other prominent public figures after other members of staff raised the alarm about strange smells in the food.

Stowe School

"During routine checks, school staff became suspicious that foodstuffs had been tampered with and the police were alerted," said a spokesman for Stowe, set in 750 acres of impressive grounds near Buckingham, 60 miles northwest of London.

Detectives said a 58-year-old man had been arrested at his home on suspicion of administering poison with intent to endanger life or inflict grievous bodily harm.

Media reports said the man was a kitchen porter and police confirmed he was a member of staff at the school, which has about 750 boys and girls, aged from 13 to 18, and where fees are more than 27,000 pounds a year for boarders. An alert Head Chef had tasted the food prior to service and was able to prevent consumption by the pupils.

An old boy of the school now living in Australia commented that 'even with a contaminant, he doubted the soup could have tasted worse than those concoctions he experienced at the school 40 years ago!'

New global monitoring tool identifies the world's food safety offenders

By Guy Montague-Jones, (foodqualitynews.com)

A new monitoring tool presented at a recent European Food Safety Association (EFSA) conference has named China, Iran, Turkey, the United Sates and Spain as the top five offenders in food contamination between 2003 and 2008.

Taking into account more than just the number of food alerts from a particular country, the new computer system is being touted as a tool to facilitate the adoption of the Beijing Declaration on food safety.

Signed by 50 countries in 2007 the Beijing Declaration urges signatories to develop comprehensive programmes to improve consumer protection and participate in the International Food Safety Authorities Network (INFOSAN) to share food safety information.

The scientists behind the new computer tool, which was presented last month at an EFSA-AESAN conference on risk surveillance of imports, claim it will help countries identify major food safety transgressors and detectors within their trading networks. They also say the program will allow easy handling of the enormous quantities of data that arise from food alerts and recalls.

Writing in the PlusOne open access journal, the system creators said: "Owing to the enormity and frequency of arrival of the data involved, the development of new monitoring systems is warranted to facilitate

CONTINUED ON PAGE 22

wider participation in food alerting and to provide early detection of potential 'epidemics' of contaminated foodstuffs (e.g. melamine in Chinese food products)."

The new system takes a "network approach" that attempts to capture the complexity of global food safety, analyse trends, and predict the impact of interventions. Rather than just counting up food alerts, the software takes into account the number of reports received by transgressor countries and reporting countries (detectors) related to a particular country.

The computer tool is also capable of taking impact into account by computing the number of countries involved in a transgression as well as the number of alerts.

Analysing data from the alert logs from the European Rapid Alert System between January 2003 and 2008 the program picked out some of the worst food safety offenders.

In descending order, the five biggest offenders judged by the total number of food alerts were Iran, China, Turkey, the US, and Spain. But the order was different when impact was taken into account with China taking first place as the worst offender and Iran dropping down the list.

From China

China begins emergency check of dairy products

BEIJING - In China, 10-day emergency inspection of dairy products has been undertaken because of reports that tainted items the government ordered destroyed during the melamine incident two years ago were still on the market, according to the official newspaper 'China Daily'.

The chemical, which can cause kidney stones in infants, led to the deaths of at least six children and poisoned up to 300,000 people in 2008, according to the Chinese government. Melamine was discovered in a wide range of dairy products after the scandal erupted in September 2008.

The government ordered all suspect products to be recalled and destroyed, but some "unscrupulous" companies have taken the recalled products and repackaged them for sale, Health Minister Chen Zhu said during a teleconference call over the weekend, according to China Daily.

Melamine-laced milk powder has resurfaced mostly as an ingredient in processed food like ice cream and condensed milk, the newspaper said. Mr. Chen said the recall was "an uncompleted task that has to be completed."

This announcement is likely to undermine further confidence in food and other products from China which have suffered a number of high profile scandals in terms of product tainting in recent times.

PLUG-IN Pest Free®
Australian Designed and Patented

Pest Free Australia has received Multiple Exporting Grants from the Australian Federal Government.

DON'T let this happen to your building!!

Plug-In Pest Free's Innovative technology also protects the electrical wiring in a building

DOMESTIC
for Homes

- ✓ No Chemicals
- ✓ No Smell
- ✓ No Mess
- ✓ No Fumes
- ✓ Non Toxic

COMMERCIAL UNIT
For Business Premises

- ✓ Workplace safe
- ✓ Staff Safe Food Safe
- ✓ Maintenance Free
- ✓ ENVIRONMENTALLY RESPONSIBLE

The Innovative Chemical Free Pest Management System for Businesses who set high standards for their staff and customers without the use of Toxic and poisonous chemicals.

Designed to last for MANY YEARS
Save $$$$$$ OF DOLLARS
From ongoing expensive toxic chemical treatments by Pest Controllers.

Australian Made — Pest Free — since 1995 and sold around the world

HACCP ENDORSED

HACCP INTERNATIONAL FOOD SAFETY PROGRAMME CERTIFICATION

Pest Free Australia Pty. Ltd.
Unit 1/24 Portside Crescent,
Wickham NSW 2293
AUSTRALIA

Phone + 61 2 49 69 5515
Fax +61 2 49 69 5517

sales@pestfree.com.au
www.pestfree.com.au

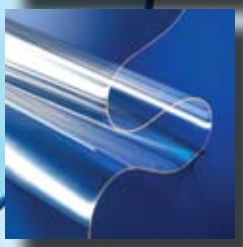
AUSBUY

- ✓ Scientifically Proven
- ✓ Independently proven
- ✓ Consumer proven since 1995

FLEXIBLE PVC

Strip doors
Room dividers
Swing doors
Sound booths
Welding bays
Flexible glazing
Waterproof liners
Safety accessories
Full sales, cutting and welding services

Available in strip, sheet ot cut to size



DMF's flexible PVC satisfies all requirements of HACCP Australia Food Accreditation Systems, and is therefore endorsed as "food-safe" in food processing and handling facilities.
CERTIFICATE No. PE-501-DMF-01

dmf INTERNATIONAL

Ph +61-2-9636 5466
www.dmf.com.au
DMF INTERNATIONAL PTY LTD SYDNEY AUSTRALIA

Safe, clean and reliable production.

FESTO

You can rely on Festo for valves and actuators for safe and efficient operation in your splash zones. Installing automation components right where you need them results in faster cycle speeds and reduced energy consumption. Increase your productivity, security and peace of mind by installing HACCP accredited, clean design valves and actuators from Festo.

Web: www.festo.com.au
Em: info_au@festo.com
Ph: 1300 88 96 96

FACTERIA
Clostridium

The genus Clostridium refers to a group of anaerobic, spore forming rod shaped bacteria. Of the 32 main species, only two have strong implications in food-borne illness; C. botulinum and C. perfringens. Two other species, C. difficile and C. Tetani are human pathogens causing respectively, colitis and tetanus.

C. perfringens was once known as C. Welchii and is one of the most common food borne illnesses. (The bacteria is also responsible for Gas Gangrene in wounds). Illness is caused by toxin production in the gut when large numbers of the viable cells are consumed. An infective dose is though to be about 1,000,000 + orgs per gram. The illness is characterized by a rapid onset (about 10 hours) and rapid recovery (about 24 hours) from symptoms such as diarrhea and stomach cramps. Vomiting is rare from the illness.

The bacteria is widely spread in nature and commonly carried in the guts of warm blooded animals and insects, soil, sludge and rotting plant material. The most common contamination scenario is where spores of the bacteria survive a cooking process only to germinate if the food is held for extended periods and cooled too slowly prior to consumption. Germinated cells will rapidly multiply to a level of infective dose if the correct conditions for growth exist. Meats, poultry and sauce/gravies are the most commonly implicated foods and the illness is so common it is thought that 100% of the adult population have suffered from at least one incidence of C. perfringens poisoning.

C. botulinum produces botulin toxin, held to be the most toxic substance known to man. 500grams of the material could kill half the world's population! (LD50 of approximately 1 nanogram / Kg). It is also the active substance in Botox treatments!

Initially isolated from hams implicated in an outbreak of botulism (botulin poisoning), the organism was originally thought to be most common in sausage and fermented meat production ('botulus' is sausage in Latin). In the food industry today, low to mid acid foods under anaerobic conditions (such as some canned foods) are at risk of the growth of this bacteria….typically again, through the germination of spores surviving the cooking process. There has been some recent concerns about gourmet-type oil-preserved foods (such as garlic in olive oil) being susceptible to the growth of this bacteria.

C. botulinum can be isolated from soils in various regions of Australia although outbreaks of botulism are thankfully rare as mortality rates are high from the illness. There have been no reported (confirmed) case in Australia since 1991. Symptoms include blurred vision, loss of speech and swallowing ability, weakened respiratory functions and subsequent death. Onset of illness is typically 18 – 36 hours.

Due to the serious nature of the organism, thermal processing procedures in the food industry for products such as canned foods are built around the destruction of this bacteria in low to mid acid foods.

The toxin has also been considered for use as a biological warfare weapon due to it's extreme toxicity. Research was conducted by Nazi Germany in this regard and it is rumored to have been used in a failed assassination attempt against Fidel Castro by the CIA by coating his cigars in the substance.

IN FOR THE KILL
with BAXX Cold Plasma technology

An increasing number of manufacturers are investing in cold plasma technology to kill pathogens in the air and on the surface areas of processing plants.

One year after launching the technology, Baxx's equipment has been installed in many facilities in the UK including those operated by Dairy Crest, The Foyle Food Group, Cranswick, Dr Oetke, Mission Foods, Fresh Direct, Kitchenomics and 2 Sisters Food Group.

"We've not just had interest from firms in the UK, we've also had interest from General Mills in Australia and McDonalds' bread-making sites in France. In Asia, Singapore's Fresh Direct and pork suppliers, Tiong Lian have invested in the product with further sales in Holland, Spain, Israel, the US and South Africa. The interest has been astonishing" said Janine Hamilton, Baxx's sales director.

Patented technology

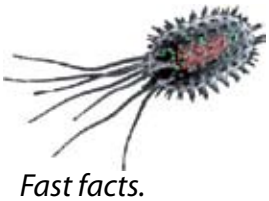
The patented technology uses cold plasma to create and disperse hydroxyl radicals into the air. These rob bacteria, spores and viruses of their hydrogen atoms. The technology can be used in storage, thawing, chilling, processing and packaging. When Anglo Beef Processors put a Baxx unit in its cutting area, Hamilton said they reported "fewer employees on sick leave compared with the rest of the site, as the equipment kills airborne viruses". She said that, unlike competing health and safety technology, "cold plasma does not require any toxic compounds or harmful high energy [UV] radiation or the danger of ozone poisoning associated with other disinfection processes."

Campden BRI is currently researching cold plasma technology in its project "Understanding the mode of action of cold plasma sterilisation on food borne pathogens." Says Dr John Holah at Campden BRI. "Cold gas plasmas are produced under ambient conditions. Their anti-microbial effects offer an unprecedented opportunity of treating fresh foods to reduce the microbial pathogen loading on them without adversely affecting the nutritional and other key characteristics of the food."

According to Hamilton, the secret of BAXX is in its ability to continuously produce huge amounts of Hydroxyls 24h/365d with no change parts and no maintenance, so the benefits to the food factory is long term and cost is extremely low.

BAXX is CE approved and is tested and certified as a "food safe product" by HACCP International.

More details can be found at: www.baxxuk.com



Destroys Bacteria

Fast facts.

Baxx is an environmental pathogen and air-borne pollutant removal system.

The Baxx cold plasma technology kills Bacteria, Virus, Moulds & Fungus spores by disrupting the metabolism of their cell walls – no toxins, no chemicals, no radiation.

There are neither filters to replace nor consumables – no servicing and requiring only an occasional clean. Install it and let it do the work. Ceiling or wall mounted. 220v -240v.

3 year 24/7 warranty - continuous running.

Unique cold plasma technology to create Hydroxyl Clusters which naturally kill all airborne pathogens. These groups also react with odour causing chemicals such as ammonia and methane gas to produce neutral compounds such as Co2, Nitrogen and Water. The harmless way to create a safer and cleaner environment.

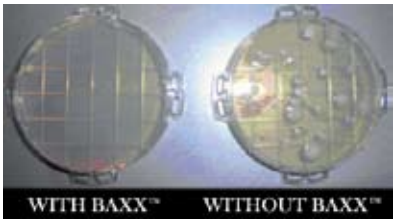
As used in UK and European hospitals, and now fast being adopted in stainless steel versions with resin fan motor for the food manufacturing industry as well.

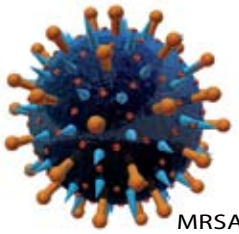
BACTERIA : testing on air-borne pathogens found the Baxx to be up to 99.9% effective in removing pathogens after 90 minutes.

VIRUSES : in controlled environments viral traces were reduced by 88.96% after 90 minutes.

FUNGI : test's on rice placed in a high humidity environment for one week, found that mould growth and spore production completely arrested in a Baxx environment as opposed to complete inundation of the rice in a non-Baxx controlled environment.

AMMONIA : Ammonia concentrations were reduced from 100% to 0% within 30 minutes as compared to 48% by natural reduction.





TESTS INDICATE EFFECTIVE ELIMINATION OF THE FOLLOWING -
ESCHERICHIA COLI (E COLI)
STAPHYLOCOCCUS AUREUS
LISTERIA MONOCYTOGENES
PSEUDOMONAS and ASPERGILLUS NIGER
CAMPYLOBACTER
BACILLUS SUBTILIS SPORE
SALMONELLA
SACCHAROMYCES CEREVISIAE
MRSA, C.DIFF(SPORE FORM) AND NOROVIRUS

BAXX™

AUSTRALIAN TECHNOLOGY PATENT NO.2006100345 AUS
SPECIALLY DESIGNED FOR BACTERIA ELIMINATION

www.baxx.com.au

www.baxx.biz (Singapore)

www.baxxuk.com

FACT

"These products are food safe"

HACCP INTERNATIONAL FOOD SAFETY PROGRAMMEN CERTIFICATION

www.haccp-international.com

The HACCP International certification process supports organisations that demonstrate food safety excellence in non-food products that are designed for, or commonly used in, the food industry. The 'HACCP International' mark is particularly aimed at those products that are required to be 'food safe' compliant or HACCP approved in order to meet the food safety demands of their quality conscious customers. The independent assessment and verification process offers asurances to the buyer that such products are "fit for purpose" and, used correctly, will not compromise food safety protocols.

Certified products are rigorously reviewed by HACCP International's food technologists and in their estimation both contribute to food safety in their use and demonstrate appropriate standards of food safety in their design, manufacture and technical application.

Only products that are certified by HACCP International can carry the HACCP International mark or its regional equivalent. Quite often, certification requires manufacturers or service providers to make modifications to a product, be it in terms of design, material selection or claims about the product in order to comply. The process is particularly useful for products which have several industrial applications of which the food industry is one important segment.

The companies listed below have a range of products which carry the HACCP International mark or a regional equivalent for more local application. Please call one of our regional offices for further information or if you are looking for a food safe product.

CATERING AND FOOD SERVICE EQUIPMENT	SEMAK MACKIES ASIA PACIFIC (I) TOMKIN AACLAIM FOOD SERVICE EQUIPMENT (FSE) KENCAN LTD
CLEANING EQUIPMENT	AUSSIE RED EQUIPMENT GOLDSTEIN ESWOOD OATES CLEAN SABCO STEAMASTER AUSTRALIA
CLEANING CHEMICALS KITCHEN MATERIALS AND SANITATION PRODUCTS	3M AVANTI CHEMICALS BAXX (I) BIOTECH-OZONE CLOROX CONCEPT LABORATORIES DEB GROUP GREEN MOUNTAIN SOLUTIONS LALAN SAFETY CARE OATES CLEANING PASCOES PROARMA SCA HYGIENE
CLEANING & MAINTENANCE SERVICES TO THE FOOD INDUSTRY	ACE FILTERS AERIS HYGIENE SERVICES BORG CLEANING CHALLENGER CLEANING SERVICES ICE CLEAN INDUSTRIES INTEGRATED PREMISES SERVICES ISS HYGIENE SERVICES METROPOLITAN FILTERS MOBILE TRUCK WASH COMPANY OZ TANK PINK HYGIENE SOLUTIONS POWERTANK
CLOTHING, DISPOSABLE	LALAN GLOVES SAFETYCARE
GLOVES AND PROTECTIVE WEAR	LIVINGSTONE INTERNATIONAL PARAMOUNT SAFETY PRODUCTS RCR INTERNATIONAL STEELDRILL WORKWEAR & GLOVES SCA HYGIENE
FACILITY FIXTURES, FLOORING AND FIT OUT	ALBANY DOORS (I) ALTRO FLOORING BASF CONSTRUCTION - UCRETE BLUE SCOPE STEEL (I) BREMA - ICE MASTER SYSTEMS CARONA GROUP DMF INTERNATIONAL DOORS (I) DEFLECTA CRETE DYNAMIC COMPOSITE TECHNOLOGIES DYSON AIRBLADE (I) GENERAL MAT COMPANY HALTON (I) HOSHIZAKI LANCER LAMAL GROUP PHILIPS LIGHTING RAMVEK ROXSET THORN LIGHTING (I)

FOREIGN BODY IDENTIFICATION	SMITH HEINMANN AUSTRALIA WJB ENGINEERING
LABELS - FOOD GRADE	OMEGA LABELS PURBRICK HEALTHPRINT W W WEDDERBURN
MANUFACTURING	BSC MOTION TECHNOLOGY
EQUIPMENT COMPONENTS & CONSUMABLES	ENMIN (I) FCR MOTION FESTO (I) HARRINGTON ELECTRICAL MOTORS (I) LANOTEC (I) SICK SMC PNEUMATICS (I) SPECIALTY AIR
STORAGE EQUIPMENT & PACKING MATERIAL	ARMACEL (I) CONFOIL CROWLE INDUSTRIES DALTON PACKAGING HILLS INDUSTRIES MICROPAK NETPAK SCHUETZ DSL
PEST CONTROL EQUIPMENT AND MATERIALS	BASF BELL LABORATORIES INC (I) EKO SOLUTIONS PEST FREE AUSTRALIA (I) STARKEY PRODUCTS (I) WEBCOT WEEPA PRODUCTS
PEST CONTROL SERVICES	AMALGAMATED PEST CONTROL ANT-EATER ENVIRONMENTAL ARREST-A-PEST CPM PEST & HYGIENE SERVICES ECOLAB ISS RENTOKIL SCIENTIFIC PEST MANAGEMENT
REFRIGERATION GOVERNORS, EQUIPMENT DATA SYSTEMS AND DIGINOL MAINTEMANCE	AERIS HYGIENE SERVICES (I) CAREL DANFOSS DIGINOL (I) HEATCRAFT PHASEFALE
FOOD INDUSTRY SERVICES	SHADOW GROUP SKILLED GROUP SPECIALTY AIR
THERMOMETERS, PH METERS AND DATA LOGGERS	3M FLUKE TESTO TRIPLE POINT CALIBRATION

(I) indicates that the company offers products or services with global compliance or registration. Others have a national registration in one or more countries

FoodQuality news.com

FoodQualityNews.com is a leading daily B2B news online service Food Safety and Quality Control. The site focuses on the areas of HACCP, Food Safety, Food Quality, Food Microbiology and Hygiene, providing professionals every day with the latest breaking news and its implications for the industry. Joining the subscriber base entitles one to the free newsletter.

www.foodqualitynews.com for more details.

FoodQualityNews.com is published by Decision News Media, an international online business-to-business news publisher. The company runs market leading science and business news services in the food, pharmaceuticals, science and cosmetics industries. From its newsrooms in Europe, the USA, Russia and Asia Pacific, Decision News Media serves decision makers in large international companies worldwide. Decision News Media has its head office in Montpellier - France and offices in London and Hoboken - New Jersey.

www.decisionnewsmedia.com

STARKEYS
PRODUCTS
ESTABLISHED 1969
A DIVISION OF E.B. HOLLAWAY PTY LTD ABN 18 008 770 974

Australia's largest electric fly killers and insect trap manufacturers

FLY TRAP 80
PATENT PENDING

DECORE

SHATTERPROOF TUBES

Why take the risk with your reputation, your food quality and your customers safety?

HACCP INTERNATIONAL FOOD SAFETY PROGRAMMEN CERTIFICATION

46 Achievement Way "Enterprise Park"
Wangara Western Australia 6065
Telephone: 61 8 9302 2088
Facsimile: 61 8 9302 2138
Email: Starkey@iinet.net.au
Website: www.starkey.iinet.net.au

HACCP INTERNATIONAL

FOOD SAFE PRODUCTS AND SERVICES

- Are your non-food products, equipment and materials FOOD SAFE?
- Are your service suppliers FOOD SAFE and HACCP compliant?

Be sure, be FOOD SAFE
Look for the food safety mark

Looking for food safe products or services? Call us on :

HACCP ASIA PACIFIC	HACCP EUROPE	HACCP AUSTRALIA
+852 2824 8601	+44 1227 731745	+61 2 9956 6911

www.haccp-international.com

HACCP INTERNATIONAL
eliminate the hazard - reduce the risk