HACCP INTERNATIONAL FOOD SAFETY CERTIFICATION PROGRAMME

HACCP INTERNATIONAL

FOOD SAFETY BULLETIN

ISSUE 3 2011

ACTIVEION™
A non-chemical cleaning solution

SMC
How clean is your compressed air?

HALAL
standardisation opens trade opportunities

BRC
a look at the new storage and distribution standard

activeion™

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CERTIFICATION

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Welcome

to the third issue of our bi-annual HACCP International bulletin.

It is only one year since we published the first such magazine and we are very pleased with the uptake and interest in both the magazine and the mark.

The mark is now being carried by many well known and excellent non-food products particularly aimed at the food market.

Our offices in Australia, The UK and Hong Kong have been busy reviewing an array of excellent products – many of which have quite superb food safe characteristics and applications in our industry. The certification process is designed to 'separate the wheat from the chaff' and the resultant 'Certificate of Conformance' confirms, to supplier and buyer alike, the 'fitness for purpose' of products for use in food processes that require the very best in terms of food safety and compatibility with a HACCP programme.

Clive Withinshaw - Director,
HACCP International - Australian Office

The certification process is designed to 'separate the wheat from the chaff' and the resultant 'Certificate of Conformance' confirms 'fitness for purpose'.

Recently, certification has been issued in repect of Altro's flooring, Baxx's air purifiers, Activeion's 'ionator', Global's Champion dishwashers, Champion's detergents and sanitisers, Dyson's 'Airblade™', Halton's ventilation systems and range hoods, Hoshizaki's beverage systems, Carlisle's cleaning equipment and SPM's soft serve machines. Many others are still in the pipeline.

While a number of submissions have been unsuccessful, many of the applicants have benefited hugely from the process in identifying issues of which they weren't aware in terms of food safety. Several are being readjusted to meet the criteria and will, we trust, be successful on a second review.

The process is proving very popular with food handlers as they struggle in discerning which products are suitable in a processing environment. The mark allows industry to choose certified products with the confidence that it has been thoroughly examined and is 'fit for purpose' in a commercial food application.

Importantly, products and services carrying HACCP International's certification are reviewed or audited, either annually or bi-annually, not only to ensure conformance is maintained but also to ensure they meet improving or revised standards and the expectations of the food industry especially in light of emerging technologies and innovation which provide improved safety economy and efficiency.

The mark is now being seen and recognised extensively in Australia, Europe, America and Asia and the international offices have been busy supporting the mark and introducing its value to industry. If any readers have questions in this regard, please feel free to contact us for a chat or to get further details sent out.

As part of our own accreditation requirements, HACCP International has established an 'Independent Advisory Committee' to oversee its own processes while also making available an avenue for applicants who may require further review of outcomes and decisions. This overseeing committee comprises representatives from industry who use and rely on the mark, academia, industry bodies, food technology and HACCP International staff (in the minority) as well.

Through our Australian offices, we are now in the process of making available to industry a number of accredited standards for non-food items. Soon to be available will be two which have attracted considerable interest, one being for 'cutting boards', a subject which has always been hotly debated in countries throughout the world and another being for 'magnetic separation equipment' which is becoming increasingly important as a contaminant control process in today's market.

Editorially, this journal is designed to address a wide range of food industry and food safety issues which we do hope you find useful whether it be as background, reference, a product index or just a lunch time catch-up. It also promotes products that carry the mark (only those that do may advertise herein).

We look forward to hearing from you with any comments that you might have – editorial submissions are always especially welcome.

HACCP INTERNATIONAL FOOD SAFETY PROGRAMME CERTIFICATION

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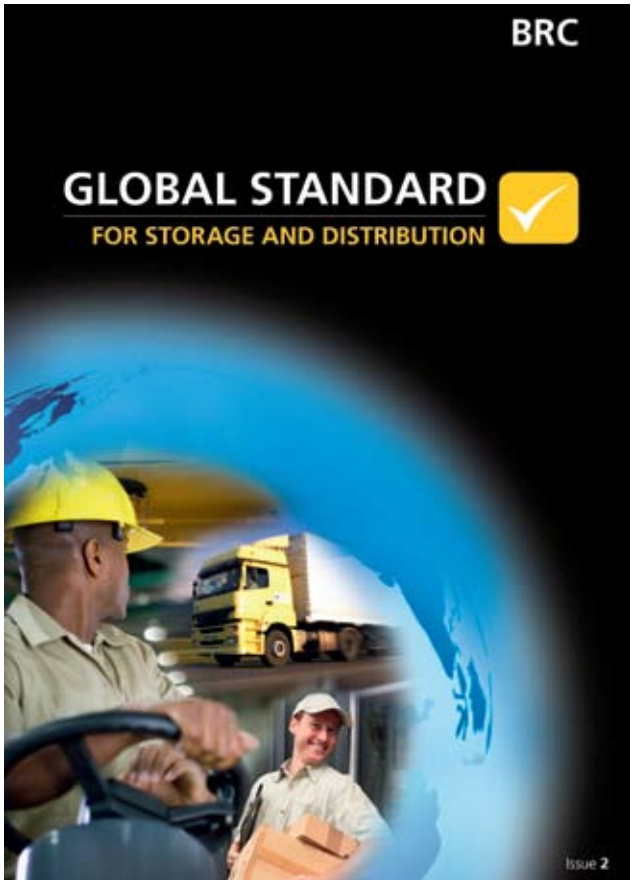
THE NEW BRC GLOBAL STANDARD FOR STORAGE AND DISTRIBUTION

by Richard Mallett, European Director of HACCP International

In September of this year Issue 2 of the British Retail Consortium Global Standard for Storage and Distribution was released. Those who subscribe to, or use the BRC Global Standard for Food Safety will notice some immediate similarities in the layout of this new issue of the Standard. It has been developed, in keeping with all of the BRC Standards, by a multi-stakeholder group made up of retailers, food service companies, industry trade associations, certification bodies and expert individuals.

So what's new in this issue of the Standard? Well, in keeping with the Food Safety Standard, there is a new section 1 – Senior Management Commitment. This has been put in place to ensure that responsibility for safety, legality and quality of products handled is cross functional, managed by the activities of many departments and wholly supported by the senior management team. One of the perceived problems with the older standards was that the onus of responsibility often rested with just one individual who would have to "fight their case" against a senior management team which, rather than seeing the standard as an opportunity to continually improve food safety and quality, could see it as another cost which should be minimised. This often led to poor inter- department communication within a company and a culture of "doing the minimum to achieve certification".



The other requirements of the Standard are summarised below:

Section 2 – Hazard and Risk Analysis (or HACCP).

This is clearer in content than Issue 1. The section now includes a clause to consider allergenic hazards, for instance cross contamination of loose product or outer packaging by allergenic materials. Review requirements are laid out in better detail and include those occasions when a review should be conducted and a requirement to review the hazard analysis and risk analysis and pre-requisite programmes annually as a minimum.

Section 3 – Quality Management System.

Of note is the expanded section to manage customer contractual arrangements with more detail concerning those storage and distribution requirements that need to be agreed and a requirement to review contractual agreements. The old "Management of Incidents, Product Withdrawal and Product Recall" section has been split into two, to more appropriately manage withdrawal and recall and then separately, incident management and business continuity. The new section requires that procedures are in place to formally hold product until further investigation and contains detail concerning contingency planning for business continuity in the event of major incidents including disruption to services, accidents such as fire and sabotage.

BRC GLOBAL STANDARD FOR STORAGE & DISTRIBUTION

Section 4 – Site and Building Standards

The old section 3 (Site Environmental and Operating Standards) has been split into two new sections as detailed above. Section 4 examines layout, fabrication issues, staff facilities and, new for Issue 2, a requirement to risk assess and document site security issues.

Section 5 – Vehicle Operating Standards

This section lays out the requirements to manage vehicle standards, temperature control and security.

Section 6 – Facility Management.

This section looks after the requirements that used to be part of old section 3 and separates out the requirements for equipment design and selection, maintenance of equipment, calibration, housekeeping and hygiene, waste disposal and pest control.

Section 7 – Good Operating Practices

This is brand new to Issue 2 and details fully the requirements for receipt of goods acceptance and product handling and movement concentrating on inspection procedures it requires personnel to be aware of products that require specific handling conditions (e.g. temperature sensitive, organic status, allergenic) and be trained in appropriate documented procedures. In fact the section specifically demands that risk of cross contamination is assessed where allergenic materials are stored or transported and that any necessary additional spillage controls are incorporated. This is in keeping with revisions of the BRC Food Safety Standard which elevated a need to manage allergens.

Section 8 – Personnel

This section manages the need to train staff and to ensure good personal hygiene practices.

> The standard contains a separate wholesale section and an expanded contracted services section. It is without doubt easier to follow than Issue 1.

The standard contains a separate wholesale section and an expanded contracted services section. It is without doubt easier to follow than Issue 1, the first part of which was a little clumsily split into a section for Storage and a section for Distribution with some virtually duplicated clauses. The old Issue, particularly within the Storage module, also made an attempt to split the mandatory clauses into those applicable to food and those applicable to consumer products. This has now also disappeared and the clauses are mandatory to all product types included within the scope of the Standard. The design of this standard and indeed the latest issues of The Packaging Materials and Consumer Products Standards now provide for a standard template across the range of BRC Standards.

SPM Drink Systems SpA introduce a new concept of soft serve ice cream machine: The GT

The ideas at the foundation of SPM have very old roots, grown over more than 40 years from Umberto Grampassi's mind. Strong ideas and constant evolution have provided a benchmark for international markets since 1966. SPM is a concept born in the family and encouraged by the family. Fundamental values that today are maintained by Massimo and Enrico Grampassi, illustrating Umberto's sons' dedication.

Through the design, creation and production of hot, chilled and frozen drinks dispensing systems for the Food Service industry, SPM has never given up its position of leader in technological research. To this day, SPM builds its future plans on the ability to innovate, researching advanced technologies, realising energy savings, while maintaining great functionality and, unbeatable production capacity of products.

After many years of manufacturing experience in frozen drink dispensers, SPM developed an awareness of an emerging market demand for small, economical and attractively designed soft serve ice cream machines. SPM used its know-how in frozen drink dispensers manufacturing for developing a brand new concept for the soft serve ice cream machine. On this basis SPM Created the GT, the first over-counter machine available for the preparation of thick and creamy soft ice creams.

The GT is compact: the machine can be used in small cafes, restaurants and bars. Its attractive look and elegant design make it perfect for any location. The small size of its bowl allows for continuous fresh products, thus avoiding waste.

The GT grants maximum hygiene and ecology. Further, safety of the operator is protected by an efficient system of automatic stop, which activates in the case of incorrect use of the machine.

The GT also yields high productivity, thanks to a 50% overrun of the volume of the product

SPM's attention and dedication to food safety led to a request for certification by HACCP International on the GT model; the GT was reviewed for the purposes of product endorsement and certified in 2010 as appropriate for use in food facilities that operate in accordance with a HACCP based Food Safety Programme.

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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

HACCP INTERNATIONAL FOOD SAFETY PROGRAMME CERTIFICATION

Halton

Chemical sprays for cleaning and sanitising - can they be replaced?

THE ionator EXP™ FROM ACTIVEION™ RAISES AND TACKLES THE ISSUE.

Despite growing concern over the long-term health effects of chemical cleaners, the need to clean means that potentially harmful sprays continue to be used by many. Technology company Activeion Cleaning Solutions™ believes it offers a real alternative to these chemicals.

Cleaning and sanitising are absolute requirements through all stages of food production, storage, preparation and retail. For most companies, this means using a variety of chemical cleaners that are designed to either clean specific surfaces, or to be effective against specific soils.

Many chemical cleaning sprays contain ingredients that are known to be harmful.The mixture of chemicals all of us are exposed to over time is a cause for concern. Basic high school chemistry suggests that one should not mix chemicals without knowing what the reaction will be, but who knows just what chemical mix any one of us has been exposed to? And who knows what the accumulation of chemicals will mean in the years to come?

One area where it is possible to limit exposure to strong chemicals is cleaning and sanitising. There are a number of alternatives to chemical sprays, such as steam, ultrasound, and electrolysed water that have proven to be effective in recent years. However many of these technologies have characteristics which limit their use in retail or hospitality environments.

Therefore, from an ease of use and practical viewpoint, the use of chemical sprays for cleaning and sanitising has become the norm in hospitality and retail. In use, these sprays are normally directed at the surfaces to be cleaned but, in reality some ends up where it should, some ends up somewhere else as overspray, and some ends up airborne as a potential contaminant. You can tell by the smell!

A recent US study, which examined thirty different chemical cleaners used in US schools, identified airborne traces of four hundred and fifty seven distinct chemicals. Whilst there was no mention of these nasties on any product labels, formaldehyde, benzene and chloroform were all found. The report acknowledges that "green" cleaners generally released fewer toxins, but in this US study, some were still found to contain chemicals linked to cancer or asthma.

A further cause of exposure to chemicals is the residue left behind on cleaned surfaces – this gets onto food and skin. These traces are minute to be sure, but some household cleaning products contain ingredients that are thought to accumulate in our bodies, so these traces could potentially harm our health.

The question raised is whether it's possible to clean places safely around staff, clients and food without using any chemicals?

One manufacturer offers a new solution that testing all over the world has verified. New technology from Activeion, the ionator EXP™, while revolutionary in its design and process, gives a similar result to a plethora of chemical sprays by making ionized water when and where it is needed. Ionized water is a powerful dirt-removing and bacteria-killing agent.

Independent labs have tested the ionized water from the ionator EXP™ - it can both clean and sanitise effectively. This is endorsed by the recent certification from HACCP International as a food safe device.

CONTINUED ON PAGE 08

The device is rechargeable and refillable, meaning that each unit will transform up to five thousand litres of water during its normal life for substantial savings in most areas. Users report savings from a pure financial viewpoint, but are also interested in the green savings and PR opportunities offered by reducing reliance on older methods.

Activeion technology uses two electrical sciences to transform plain tap water into ionized water. Water electrolization provides the cleaning power, while irreversible electroporation kills germs. When applied to a surface, the ionized water cleans and kills harmful bacteria without chemicals and leaves no harmful residue.

An important consideration for HACCP International's technical team is the fact that the output of the ionator EXP™ degrades after 30 to 45 seconds on a surface. Karen Constable, of HACCP International said "From a food safety point of view, one of the best features of the ionator EXP™ is that the only thing left on a surface which has been cleaned or sanitised with the device is water."

Earlier this year the US National Restaurant Association announced the Activeion ionator EXP™ as a winner of its prestigious Kitchen Innovations™ Award.

In Europe, the ionator EXP™ received AFIDAMP's Green Clean Award – an annual prize highlighting companies that have outstandingly contributed to cleaning with innovative environmental products.

Now that there is a practical alternative to older methods, it is worth considering how this may impact business from an OH&S (occupational health and safety) viewpoint.

The guiding edict of all OH&S is eliminating risk when reasonable and practicable. If risk cannot be practically eliminated, then measures must be adopted to minimise risk based on a hierarchy of control these measures include:

- **Substitution – use something less risky to do the same job.**
- **Engineering/Isolation - physically build something to put the risk behind a barrier or isolate the risk**
- **Process Management - If a risk is unavoidable, then processes must be implemented to manage it**
- **PPE – Personal Protective Equipment must be provided and used with the three measures listed above.**

Elimination, where reasonable and practical, of the OH&S risks posed by chemicals is the desired outcome – and a responsible approach – for workplaces using chemicals to clean.

Using ionator EXP™ devices from Activeion™ is a practical alternative which eliminates the occupational safety risks associated with using chemical cleaners. When it comes to the safety of personnel who perform cleaning activities in a business, it can be argued that a defence of 'reasonable and practical' is quickly being lost with chemical-based cleaning methods.

FACTERIA

What rhymes with Auld, Bold, Cold, Fold, Gold, Hold etc... Yes Mold! (or Mould)

by Martin Stone, Technical Director of HACCP International

Mould exists in thousands of species and are literally everywhere. They consist of filaments known as hyphea, reproduce with fruiting bodies and spores and derive their energy from the material they are living upon. Various species of mould are capable of growth through a wide range of environmental conditions, most notably, compared to bacteria, growth in low water activity foods such as bakery products, jams and nuts.

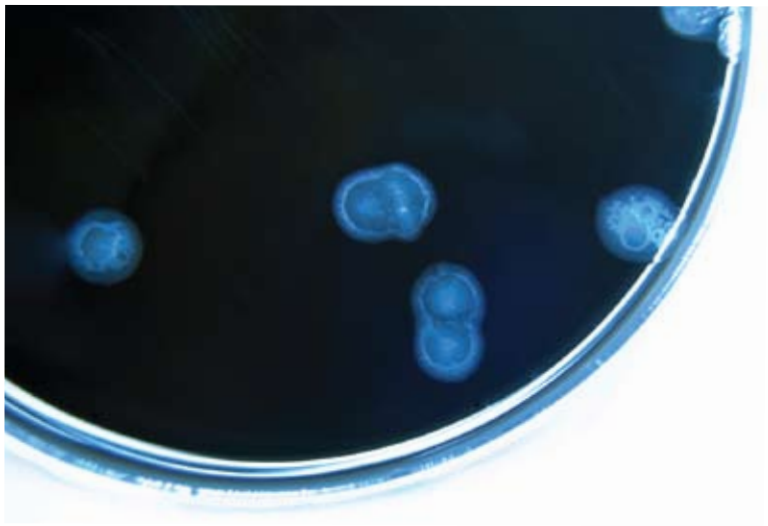
Like bacteria, some species are capable of producing toxins in food which can lead to illness.

Various species of mould from genera including Aspergillus, Penicillium and Fusarium are known to produce Mycotoxins which are highly toxic compounds capable of causing bodily injury if consumed. Colonies of mould species which produce mycotoxins can produce large amounts of toxin under appropriate conditions

The mycotoxins from these moulds fall into groups including Aflatoxin (4 sub groups), Ochratoxin (3 sub groups), Patulin and Fusarium Toxins. The health effects documented in association with the consumption of these toxins includes death, organ damage, damage to the immune system and increased sensitivity to bacterial endotoxin. Some mycotoxins such as Aflatoxin B1, are known and aggressive carcinogens.

Consumption of product infected with colonies of mycotoxin producing species is likely to result in these health effects occurring in the individual. A number of famous cases through history have resulted in significant numbers of deaths in humans, farm animals and birds.

Species of mould from Aspergillus, Penicillium and Fusarium genera are widely distributed in the environment so the growth of mould on a product intended for consumption should not be considered as low risk....think twice before cutting the mould off a block of cheese!



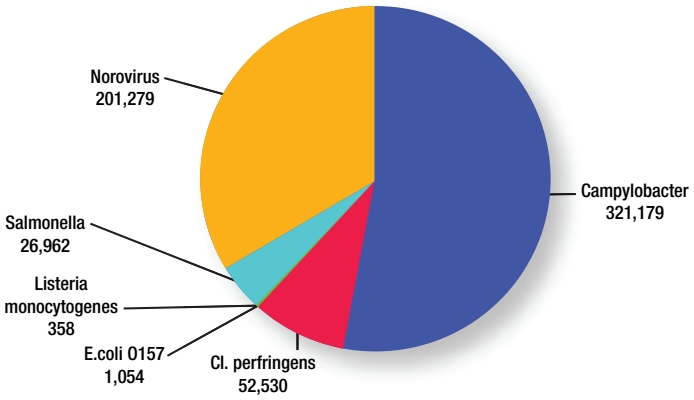
The UK Food Standards Agency Foodborne Disease Strategy 2010-15

by Richard Mallett, European Director of HACCP International

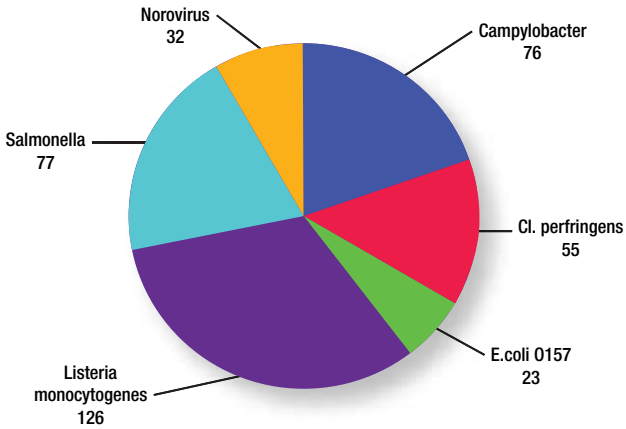
The closing date for responses to the consultation has now elapsed and the Foodborne Disease Strategy for 2010 to 2015 has been finalised. Since the launch of the Food Standards Agency in 2000 it has worked to 5 year strategic plans and in most of the plans to date, including this current one, the reduction of foodborne disease has been one of the key objectives. This is no surprise when one considers that the FSA estimates that around 1 million people suffered a foodborne illness which led to 20,000 directly associated hospital admissions and 500 deaths attributable to the disease. This all comes at an enormous cost – in fact the financial burden measures some £1.5 billion. The first strategy, implemented in 2001 had seen a reduction of no less than 19.2% in foodborne disease by the end of the strategy period in 2005. This can be considered something of a success story. However, the five years since 2005 have seen little significant change in foodborne disease cases and this lack of success is being addressed in the new strategy for 2010 to 2015. There is a financial case, as well as a public health case, for reducing UK foodborne disease. The FSA has calculated that every 1% reduction in the incidence of foodborne disease extrapolates to around 10,000 fewer cases each year or an economic saving of around £15 million.

The following charts demonstrate the burden of foodborne disease well – they are reproduced from the Food Standards Agency strategy document:

FOODBORNE DISEASE:
Estimated **CASES,** by pathogen, England and Wales 2008



FOODBORNE DISEASE:
Estimated **DEATHS,** by pathogen, England and Wales 2008



The previous strategies have been successful in terms of advances in scientific understanding, and awareness amongst consumers and food industry workers. This has not, in itself, contributed to a reduction in foodborne disease and so the new strategy is more focussed on commodity specific measures and targets based on specific pathogens. As an example of this new approach the key features of the new strategy are provided below.

- The development and implementation of a risk management programme to reduce the incidence of Campylobacter in chicken. Effective measures will be agreed between the FSA, industry partners, retailers and other stakeholders with the aim of formulating a target for the reduction in levels of Campylobacter in raw chicken, at retail by December 2010, to be achieved by April 2015. Some of the other stakeholders will include the scientific community and the UK's counterparts in Europe and beyond to explore interventions that have been found to be effective. The choice of Campylobacter as one of the key priorities is easy to understand. In the UK, in 2008, there were 55,000 laboratory confirmed cases and an estimated (unconfirmed) 321,000 cases in England and Wales alone. What's more cases have gradually risen since 2004 and a survey now suggests that around 65% of chickens at retail sale in the UK are contaminated with Campylobacter. Interestingly this problem isn't just restricted to the UK. In the largest survey of retail meat conducted in New Zealand over 2003 to 2004 89% of broiler chicken samples were contaminated. An Italian

survey reported in the Journal of Food Protection looked at approximately 350 meat samples (chicken, pork and beef) showed an equally high prevalence of over 80% when using selective culture methods.

• The development and implementation of a risk management programme to reduce the incidence of Listeria in the food chain. Human cases of listeriosis are in fact far rarer then Camplylobacter but Listeria monocytogenes causes more deaths per year than Salmonella and the much publicised E. coli 0157 combined. Cases in 2009 were almost double those in 2000 and most of the increase has occurred in people over 60 years of age. In the last year, despite "no significant change" from 2000 to 2008, there has been an increase too in cases amongst pregnant women. It is no wonder that the FSA is going to be working to identify parts of the food chain where control measures can be effective, and working to develop tools to aid risk assessment for this organism in the food industry.

These are the two key priorities for the new strategy but that does not mean that other issues will be ignored. E. coli 0157 receives attention. Although there has been no overall trend since 2000 the organism causes a high degree of public concern, no doubt fuelled by the recent outbreaks and consequent media attention in the UK. Infections can result in serious conditions that may affect the blood, kidneys or nervous system and can be fatal, particularly in infants, children and the elderly. A public enquiry into the last Wales outbreak led to the implementation of the Food Hygiene Delivery Programme (FHDP) to ensure that the recommendations of the report are acted upon. Foodborne viruses, in particular Norovirus, also fall within the strategy. Around 40% of Norovirus infections are estimated to be foodborne and it is thought that it causes around 200,000 cases of foodborne disease per year in England and Wales. Outbreaks are frequently associated with shellfish but many cases are also thought to be caused by infected food handlers introducing the virus to foods. The intention of the Food Standards Agency is to develop a Norovirus Research programme the outcome of which should be an evidence-based Norovirus Risk Management Programme.

The intentions are clear and appropriate but how will the Food Standards Agency monitor progress of this next Foodborne Disease Strategy? The answer is simple. Not only will they undertake monitoring of changes in levels of foodborne disease through the 2010 to 2015 period, they will also define measurable targets and performance indicators for each programme to reduce specific food pathogens as they are finalised. Monitoring the levels of foodborne disease will continue to be managed through two routes – laboratory confirmed cases and estimated cases. Laboratory confirmed cases are the most robust way to monitor trends whilst estimated cases tend to be an underestimate in reality. The FSA take account of this by adjusting the figure based on the under-reporting of cases that is known to occur. Watch for future editions of the HACCP International Magazine in which I shall be summarising progress against the specific targets to be implemented for the core programmes within the strategy.

METAL SCOURERS: EFFECTIVE BUT DANGEROUS!

by Karen Constable, HACCP International

Up to your elbows in grimy mess? Walls, bench tops, range hoods, stainless steel appliances, tiles and other surfaces that have a build up of oily residue can be very difficult to clean. While chemical cleaners assist with removing grime, mechanical scrubbing is almost always required.

When it's necessary to manually scrub hard surfaces in a food facility, many of us still reach for a metal scourer. Metal scourers can be made from mild steel, galvanized steel, stainless steel and even copper. They are highly abrasive, durable and easy to rinse, but food safety experts agree that metal scourers should never be used in an area where food is handled.

Interestingly, if you clean a stainless steel surface with ordinary 'steel wool', it will develop rust marks. This is due to a chemical reaction which occurs on the surface between the stainless steel and tiny fragments of carbon steel which have been left behind after cleaning. Similarly, cleaning a stainless steel surface with a sponge or brush that has previously been used to clean carbon steel causes corrosion.

Rust spots on food equipment can be a food safety problem, but fragments of metal in a food handling area are an even more serious concern. Metal scourers gradually break down during vigorous scrubbing. Loosely woven stainless scourers (as pictured) create fragments which can be one or two centimeters in length with sharp edges and ends. The fragments are often curved or hook-shaped. A few minutes of scrubbing with a stainless scourer can result in hundred of fragments being produced.

Small fragments of material in food handling areas can, and do, find their way into food. Metal detectors, X-ray equipment and magnetic separation devices should not be relied upon for detecting or removing small contaminants, particularly wire-shaped pieces which may be oriented in the food such that only a small area presents to the detecting device.

> Food safety experts agree that metal scourers should never be used in an area where food is handled.

Metal fragments in food can cause mouth injuries, and if swallowed, can lodge in the stomach, small intestine or large intestine. Once inside they have the potential to perforate the wall of the digestive tract. A perforated stomach or intestine allows intestinal juices laden with bacteria to enter the peritoneal space causing an infection known as peritonitis. Untreated peritonitis is a serious condition, which if not treated will result in a painful death within a matter of days.

Alternatives to metal scourers are available. Non-metal scourers are usually made from nylon fibres coated in abrasives. Light, medium and heavy duty scourers offer a range of scouring attributes and open-mesh models provide good rinse characteristics.

Like metal scourers, nylon scourers also release fragments during vigorous scrubbing, however these pieces are typically much smaller than stainless steel scourer fragments, and tend to be straighter. Although the pieces may be rough, they have no sharp edges, so they are less likely to cause injury to the mouth or digestive tract. Nylon is an extremely inert material, and if ingested is thought to pass through the body without causing harm.

There are a number of certified food-safe scouring products which are effective and have been closely examined in terms of their risk profile. They are a safer alternative to metal scourers. Avoid the risk – your consumers will thank you.

Shrouds on standard motors versus Stainless Steel Motors
A NEW DEBATE

Background

Motors used in food production areas - especially 'wet' areas that are hosed down regularly – pose a special problem. Typically, at the end of the shift, the machines are turned off, and then cleaned with a high pressure cleaner using a caustic solution. This is great for cleaning machinery, but poses a constant potential problem with electric motors. Water entering a motor will inevitably lead to failure – and downtime. The majority of standard motors are rated IP55, that is, weatherproof, and totally unsuitable if it is the target of a high pressure jet of water.

Traditionally, standard motors – either of aluminium or cast iron construction – have been used in the food industry, and covered with a stainless steel shroud. The shroud offers protection from the direct effect of the water blast, and gives the appearance of a 'clean' machine. Up until recently, there has been no real alternative. But for some years now Stainless Steel motors have been available off the shelf, and have been designed specifically for the food industry. There are several issues to consider.

Safety

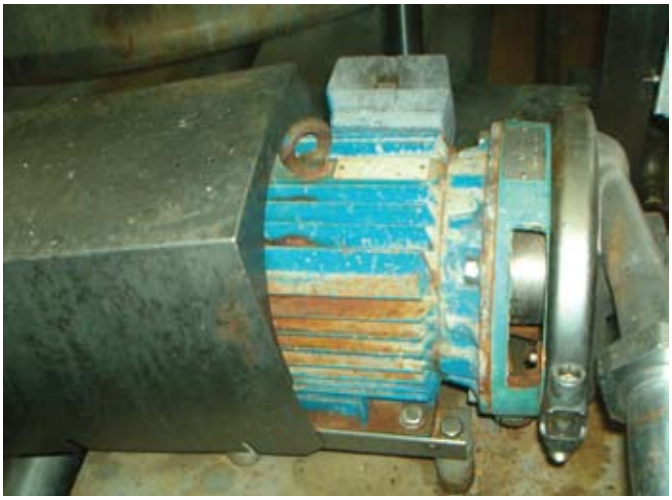
When a shroud is used, the motor is completely hidden from view. This can be dangerous. I am aware of at least one case where a shroud was removed, only to find that the caustic cleaning solution had, over time, eaten completely through the aluminium housing of the electric motor. A large opening had completely exposed the windings of the motor, which was situated on a damp floor area. An OHS inspection did not identify the serious safety risk – simply because it could not be seen.

With Stainless Steel motors, the motors are out in the open, and easy to inspect. Stainless Steel is also much more resistant to caustic solutions.

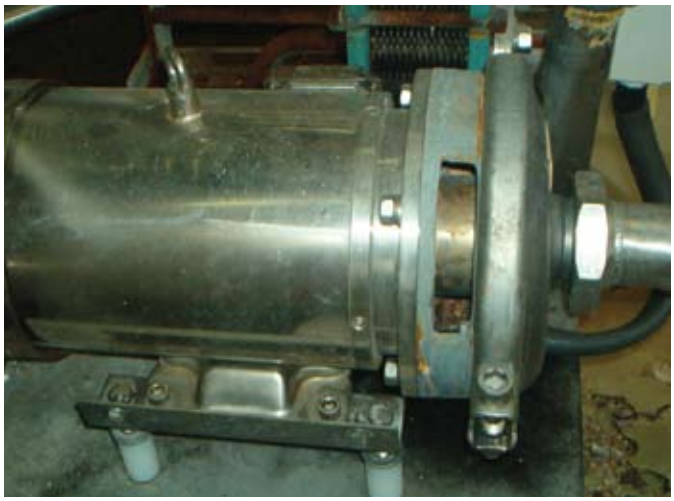
Hygiene

The importance of hygiene is becoming more critical every day. The worst event a food company can have is a recall of product due to a foreign object being found in packaged food. The damage and loss involved is enormous. There is a loss of respect in the market place, a potential loss of sales, a loss of revenue from recalled items, a large cost in the actual recall and disposal of suspect product. With health inspections, it is vital a machine is perfectly clean.

When shrouds are used over standard motors, the motors are hidden from view. Also, standard motors have cast cooling fins all over the body. With the effect of jets of cleaning solution being directed around the motor, food particles, dirt and grime is often deflected off the floor and onto the motor, and often collects between the fins. From there it is difficult to dislodge. If the shroud is not removed periodically and the motor cleaned directly, a potential build-up of grime can occur. Even worse, when this does happen, sometimes vermin are attracted to this area. There is an enclosed space, food particles, and even heat from the motor.



CIP Pump – old
A standard motor mounted under a shroud. Note corrosion on the aluminium terminal box.



CIP Pump – new
Standard motor replaced with a stainless steel motor.

Stainless steel motor driving a conveyor, no shroud necessary.

With Stainless Steel motors, a shroud is completely unnecessary. The motor is mounted in the open, and cleaners can direct a jet from the cleaning machine all over the motor, as they are IP66, hoseproof. The Stainless motors are completely smooth all over (no fins), and have a highly polished stainless steel finish. This makes them very easy to clean. Further, the Scorpion Stainless Steel motor has full HACCP International certification something standard motors with cooling fins have never achieved.

Reliability

It can be argued there would be little difference in reliability between a standard motor under a shroud, and a Stainless Steel motor, due to the similar internal design. However, over the long term, the improved protection of the Stainless Steel motor is bound to give greater longevity, and therefore more efficient production costs.

Inspections

With inspections, Stainless Steel motors out in the open are visually clean. It can be argued that a Stainless Steel shroud protecting a motor also appears clean. However, current feedback from maintenance staff is that many inspectors feel more confident with 'open' motors, compared to 'covered' motors.

Other Factors

There are some areas where a Stainless Steel motor is preferred because of the environment. For example, in sections of a food factory where salt is prevalent, or seriously corrosive vapours such as chlorine vapour is present. The alternative is to have a standard motor coated with a 'high tech' paint finish, which can be expensive, and even then not as durable.

Cost Comparison

The cost of a standard motor fitted with a stainless steel shroud, compared to the cost of a Stainless Steel motor, is an often asked question. The actual cost depends on the actual quantity required, the brand of the standard motor, the brand of the stainless steel motor, and the size of the motor in kW.

Another point to consider is if the motor is mounted on the floor, or suspended off a machine. Shrouds for motors suspended off a machine are more expensive, as they are of a circular, 'hinged' design, and far more expensive than a simple half-circle shroud.

However, a simple cost analysis is possible, to give an indication. This analysis is based on a standard Aluminium motor manufactured in Europe and fitted with a locally made stainless steel shroud, versus the Scorpion Stainless Steel motor.

For purposes of transparency, actual costs obtained are shown, as follows:

Cost in US dollars

Size Motor	Aluminium Motor	+ Shroud =	Total	Stainless Steel
0.18kW	$151	$280	**$431**	**$398**
0.37kW	$230	$301	**$531**	**$489**
0.75kW	$272	$326	**$598**	**$684**
3.0kW	$487	$347	**$834**	**$1092**

Notes

Cost of the shroud is based on a standard semi-circular design, with a 50mm wide flange for mounting onto a bedplate. Cost of the shroud would increase by approximately 50% minimum for a full circular "wrap-around" or hinged design, for motors suspended off machinery. Shroud quotation based on 1.2mm thick grade 304 Stainless Steel sheet. Price of the Stainless Steel motor is based on a 'quantity' enquiry, of more than 5 motors. It can be seen that for ratings less than 0.75kW, there is actually a saving in initial cost by specifying a stainless steel motor, compared to a standard aluminium motor with a shroud. Above 0.75kW, there is a marginal difference in initial cost

Disadvantages of using Stainless Steel motors

From a logic perspective, there is a disadvantage of using Stainless Steel motors. In a very few limited applications, the extra weight of a stainless steel motor needs to be considered, especially if it is used as a counterweight.

Conclusion

There is an increasing trend to install Stainless Steel motors and 'dump' the shrouds in many factories. Some factories have a "replace with Stainless Motor" as existing motors fail.

In some critical areas, for example, where exposed food product is situated directly underneath a motor, there is in some factories a trend to "replace with stainless" when that motor becomes due for cleaning and repainting.

The extra advantages of the Stainless Steel motor over 'covered' motors in hygiene, safety, and reliability speak for themselves. As one maintenance supervisor said, "With stainless motors, it is out in the open; I don't have to worry about what is hiding in there."

Images courtesy of Phil Spencer, Melbourne

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For information contact Scorpion Motors +61 3 9546 7515 or visit our website www.scorpionstainless.com.au

Demand for HALAL FOODS is growing fast

The potential of the global halal food market needs to be considered more seriously by exporters.

From a submission by Alyson Warnock

THE GLOBAL HALAL MARKET is evolving, but it is already emerging as a potentially lucrative market. It is estimated that the global halal food trade will be worth over US$600 billion in 2010. Although international trade is only a very small proportion of that

One of the strengths of the market is its size; current estimates of the world's Muslim population range from 1.3 billion to 1.9 billion and there is a significant Muslim population round the globe that requires halal food as a basic lifestyle need in accordance with the Koran.

Several of the countries with high proportions of Muslim population are found outside the Middle East and Africa. In S.E Asia for example, Indonesia (88%) and Malaysia (59%) have very significant populations meaning that such markets are widespread and present opportunities to many food exporting countries.

WHAT IS HALAL?

Halal is an Islamic Arabic term that literally translates to 'permissible'. Globally, in the food industry, halal is used to refer to food that is permissible under Islamic law, similar to the use of the Jewish term 'kosher'. Foods that are not halal include pork, blood, carrion, carnivorous animals with the exception of most fish and sea animals, and all intoxicants – specifically alcohol. Forbidden foods are referred to as haraam and suspect foods as shuba.

To be halal, all animals, excluding fish and most sea life, must be slaughtered according to the Islamic method: Dhabiha. This method involves cutting through the large arteries in the neck along with the oesophagus and trachea with one swipe of a non-serrated blade, without damaging the spinal cord. The animal must then be left, unhandled, until all blood and impurities have drained. All animals must be facing Mecca during this process and be slaughtered in the name of God.

The driving force behind halal is that foods must be tayyib: wholesome and natural. This means animals must be fed natural products free of hormones or other animal products such as gelatine, offal and tallow. Genetically modified foods are not accepted as halal.

THE OPPORTUNITIES

As the halal industry evolves, products are becoming more main stream and entering supermarkets. The market is also becoming more affluent with increasing numbers of consumers and higher spending on value-added products. As a result, the fastest growing halal categories are frozen meat and shelf-stable, ready-to-eat meals.

As halal becomes a global products, there are also opportunities for logistics and distribution companies. Halal products become haraam if they come into contact with non-halal products. Producers and consumers are demanding halal standards across the entire transport, handling and storage process to protect product integrity – the 'farm to fork' concept.

Logistics companies that can offer distribution in containers that are used only for halal products, or halal-only warehousing, are in high demand. Large ports such as the Port of Rotterdam have already taken steps to provide containers, warehousing and transport that meet these halal standards and are seeking partners.

The large demand in Muslim countries is an obvious opportunity, but as people travel around the world, the demand for halal also travels to traditionally non-Muslim countries. While the traditional base for halal food remains in Asia and the Middle East, the halal market in the US and Europe has grown significantly in the past three years. Muslims living in non-Muslim countries face major problems:

- **The absence or scarcity of restaurants and supermarkets that offer halal food, especially meat;**
- **The abundance of pork products used in Western cooking. Cross contamination, where the same knife or cooking pan is used for all meats, and the use of pork gelatine in many desserts;**
- **The frequent use of alcohol in cooking sauces and cakes;**
- **The confusion around food additives such as monosodium glutamate (MSG) that might use pig fat in the production process, and the lack of declaration of the use of such products.**

Providing products that fill these gaps is a large and growing opportunity. Tesco in the UK launched a range of halal products in 2004 and in the intervening years has seen sales increase by the many hundred fold and has increased its range substantially in the meantime.

The focus on foods being wholesome also creates a strong opportunity to market halal as a lifestyle choice; the new 'organic', especially in the US and Europe where consumers already pay premium prices for organic foods. Many non-Muslim people already choose to eat halal because of the perception that it is a healthy choice. It is expected that in the next five years, consumption of halal will increase among health conscious markets.

THE CHALLENGES

The greatest barrier to entering the global halal market is the lack of consensus around accepted standards. Different interpretations of the Koran and the impact of modern manufacturing methods have created confusion among halal producers. This has resulted in significant differences in standards between countries, as well as frequent and repeated auditing.

Much of the debate centres on the stunning of an animal prior to slaughter. Halal slaughter requires the animal to be

conscious and not contaminated by anaesthetics or intoxicating materials. Whether the use of electric, pneumatic or mechanical stunning in modern slaughter methods is allowed currently varies greatly between countries.

However, there is has been significant movement over the last few years to address this situation. In 2007, Malaysia hosted the first World Halal Forum. The forum brought together, for the first time, members of the halal community from around the world to discuss the issue of conflicting standards.The fifth such forum will meet again – back in Malaysia - in 2011 having made real progress in the intervening years – including the holding of a European regional forum in Holland last year.

The host of WHF 2010, International Halal Integrity Alliance (IHI Alliance), presented four published Global Halal Standards (ICCI-IHI Alliance Halal Standard) and at the 2010 conference. The four published standards are IHIAS 0100:2010 Logistics, IHIAS 0200:2010 Food Services, IHIAS 0500:2010 Animal Welfare, and IHIAS 0600:2010 Slaughtering and Processing. At the fifth conference it is hoped that these will be ratified as the basis of international standardisation.

In the meantime, Malaysia implemented their own standards, MS1500:2004, in 2004. These standards cover production, preparation, handling and storage of halal food products, and are considered among the most rigorous in the world. However, the World Halal Forum highlighted that these standards are not acceptable for every country and now, through this forum an internationally acceptable standard should soon be available having worked its way through many of the complexities of national and regional differences and interpretations.

To reduce the burden of these differences, it is recommended that international trading companies wanting to enter the halal market establish themselves in one country at a time and keep up to speed with the developments of the WHF. The choice of country is also important – look for countries with established standards that recognise certifying bodies, such as Malaysia.

Halal is a significant, growing and potentially lucrative market for international food and beverage producers, but one must be willing to make the commitment to Halal production. For more information visit www.worldhalalforum.org

HOW CLEAN IS YOUR COMPRESSED AIR?

Bill Blyth, National Projects Manager at SMC Pneumatics (Australia) investigates:

Compressed air in direct contact with food and packaging needs special air preparation to reduce contamination risks.

Compressed air is a significant energy source used in food and packaging manufacturing processes (often exceeding 20% of site electricity costs) and has the capacity to carry solid, liquid and gaseous contaminants and not to forget; microbiological products, right to the food product and open packaging. These contaminants can be introduced at the compressor inlet, from plumbing systems, during system maintenance or through the very components contained within the compressed air system and they present a very real risk to food and packaging manufacturers and consumers alike. To identify this risk requires a close inspection of the compressed air processes and also the source of compressed air. Normally accepted levels of 'factory' compressed air preparation are generally not suitable for applications where compressed air can come into contact with the food products and packaging unless further, more specialised treatment is provided; for these food grade applications there are standards that should be adopted and maintained. When assessing the risk to food products a survey should be completed of all areas where food can come into contact with compressed air. Some examples of risk areas are:

- Nozzles for reject and product manipulation
- Hand operated blow guns (cleaning etc)
- Exhausting air from valves and actuators
- Cooling Air
- Air leaks
- Filter Bowl drains

Correct Filtration should be rated to suit required flowrate, level of cleanliness with the lowest pressure drop

Using HACCP International certified and endorsed products greatly reduces contamination risks

Having considered the applications, the volume of food grade air can be assessed; 'Main Supply' treatment and/or 'Point of Use' treatment. There are a number of 'compressor room' products to provide a complete factory food grade air system; however this is not always practical or cost effective. Not all compressed air needs to be of food grade quality. With a total factory approach it is also necessary to review the condition within the current plumbing and components in the compressed air system(s), these will contain oil, water and particulate residue which will continue to invade the manufacturing processes. Often when compressed air maintenance is carried out the plumbing is 'opened' permitting possible contamination. Components may be installed that contain non food grade lubricants that will enter the compressed air system 'after' the compressor room. This can only be addressed at point of use.

Understanding the level of compressed air cleanliness will require some 'local' investigation. One solution does not necessarily satisfy all applications. Identifying temperature, pressure dewpoint, operating pressure and flow measurements in addition to water, oil and solid content will provide the current compressed air condition and provide a better understanding of the options that are available. It is important that these measurements be taken at 'points of application' for the compressed air. This will ensure the best and most cost effective solution can be applied. Because of plant layout, compressor installations and compressed air plumbing networks, a compressor room assessment alone may not provide the answer. Point of use air quality improvement products are easily integrated and remove the contaminants that are resident in the compressed air plumbing; right up to the point of contact with food and packaging. Compressed air surveys should be conducted routinely to ensure existing applications, changes in environmental conditions (temperature/seasonal humidity etc) and newly installed or repaired applications are assessed. The survey should also include a review of compressed air preparation; compressed air should be regularly tested for purity. Having completed many food quality air surveys it is normally quite easy to identify many areas of risk that can be removed. The solutions are often simple and cost effective to implement and manage.

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 the UK

Background noise affects taste of foods

"The level of background noise affects both the intensity of flavour and the perceived crunchiness of foods, researchers have found. Blindfolded diners assessed the sweetness, saltiness, and crunchiness, as well as overall flavour, of foods as they were played white noise. While louder noise reduced the reported sweetness or saltiness, it increased the measure of crunch. It may go some way to explaining why airline food is notoriously bland - a phenomenon that drives airline catering companies to season their foods heavily. In a comparatively small study, 48 participants were fed sweet foods such as biscuits or salty ones such as crisps, while listening to silence or noise through headphones. Also in the group's findings there is the suggestion that the overall satisfaction with the food aligned with the degree to which diners liked what they were hearing - a finding the researchers are pursuing in further experiments."

Noise might make airline meals easier to swallow.

The research is reported in the journal Food Quality and Preference.

"There's a general opinion that aeroplane foods aren't fantastic," said Andy Woods, a researcher from Unilever's laboratories and the University of Manchester.

"I'm sure airlines do their best - and given that, we wondered if there are other reasons why the food would not be so good. One thought was perhaps the background noise has some impact," he told BBC News.

"Nasa gives their space explorers very strong-tasting foods, because for some reason they can't taste food that strongly - again, perhaps it's the background noise.

"There was no previous research on this, so we went about seeing if the hunch was correct."

"The evidence points to this effect being down to where your attention lies - if the background noise is loud it might draw your attention to that, away from the food," Dr Woods said.

Also in the group's findings there is the suggestion that the overall satisfaction with the food aligned with the degree to which diners liked what they were hearing - a finding the researchers are pursuing in further experiments

Can "hair of the dog" really alleviate a hangover?

Food Magazine

I saw that headline in my RSS feed and was immediately intrigued. Sadly, the answer is, "Nobody knows." But it's a sad answer with an interesting reason behind it. Turns out, hangover cures are one of those things that have never gotten much attention from science, according to the Good, Bad and Bogus blog. And, apparently, that's because doctors view hangovers as a complication of excessive drinking, rather than a medical problem in, and of, itself. Treating hangover is controversial because there's already a cure, according to an editorial in Current Drug Abuse Reviews: Don't drink so much

Coffee might not be the best solution!

Move over tomato juice, bacon and egg rolls and late-night kebabs – there's now a new cure for hangovers – and it comes in a shot glass.

UK based company The Feel Good Factory has developed a new product on the Australian market, claimed to be the first of its kind to help cure hangovers.

The company's Hangover (FH) drink with a zesty orange and passionfruit taste, comes in a 60ml shot and is infused with vitamins, minerals, electrolytes, amino acids and herbs.

According to The Feel Good Factory, The FH shot replaces lost vitamins and minerals including B1, B2, B3, B5, B6, B12, biotin and vitamin C after a night out. It also contains zinc and electrolytes such as magnesium, potassium and sodium, and a variety of amino acids.

Director of The Feel Good Factory Daniel Ivachev said the company's "special formula" helps metabolise alcohol out of the system.

"With summer just around the corner and the amount of alcohol consumed about to increase, this product will be perfect to help people bounce back and be able to function properly at work," he said.

"When you come home from a big night of drinking, simply have one last drink- our 60ml shot and it will make the world of difference in the morn." So the promotional literature claims.

From Germany

Germany fights fraudulent food labeling

Oct 27, 2010 EIN Presswire

The German government is taking an aggressive new stand against food fraud which has drawn praise from consumer advocates and fierce resistance from the food industry.

The latest development was the announcement by Consumer Affairs Minister Ilse Aigner that the government will launch a web site where people will be able to report fraudulently labeled food products.

The Minister cited specific examples: a yogurt which claimed to contain real fruit but was made with artificial food flavoring, non-cheese products sold as cheese pizzas, schnitzel from dubious sources held together by organic glue.

Advocacy groups hope the decision will reign in fraud and called the action long overdue.

This is the latest move the Consumer Minister has made in an attempt to protect the public along the food supply chain. Last month she announced that health inspectors would begin pasting frowning faces on doors of restaurants where they found mouse droppings, moldy meat or cockroaches.

Industry representatives have challenged the need for more consumer protections. They claim there already are more than enough authorities involved in securing the food supply without the involvement of the Consumer Ministry.

For more agriculture news, visit Agriculture Industry Today. Located at http://agriculture.einnews.com, Agriculture Industry Today is an agriculture media monitoring service from EIN News.

From Europe

Fruit juice industry welcomes plan to ban sugar

By Mike Stones, 23-Sep-2010

The European fruit juice industry has welcomed a proposal from the European Commission (EC) to ban the addition of sugar to fruit juices - in line with its policy of reducing added sugars and promoting balanced diets.

The addition of sugar would be allowed only for nectars and some specific products where the labelling specifies the addition of sugar.

Richard Laming, media director of British Soft Drinks Association, told BeverageDaily.com that the proposal would help to end confusion about the sugar content of fruit juices.

"Although at present hardly any products do contain added sugar, and those that do say so clearly on the label, the fact that it is permitted at all can cause some confusion amongst consumers," he said. "The Commission proposal will give everyone confidence that a carton of fruit juice is made 100 per cent from fruit and contains no added sugar."

Huge majority

A spokesperson for the European Fruit Juice Association (AIJN) told this publication that it needed more time to study the proposal. But the ban is something the industry wanted and the huge majority fruit juice manufacturers do not add sugar, she said.

"This ban would help (to highlight) fruit juices' positive image as a natural healthy product," she said.

Some fruits, such as cranberry and peach, require the addition of sugar and or honey in order to make nectars, said the spokeswoman.

Ethical food trends shifts from animals to packaging, Mintel

By Lorraine Heller, FoodQualitynews.com

Food and beverage products marketed as 'ethical' have soared across Europe over the past five years, with a key focus in the 'ethical trend' being environmentally friendly packaging, according to Mintel.

A post market analysis by the market researcher found that between 2005 and 2010 to date, there were 17,208 food and drink products launched in Europe that make some claim towards being ethical.

Between 2005 and 2009, Mintel identified a 963 per cent increase in product launches in the category, from 445 products in 2005 to 4,732 last year.

As well as the overall growth in the sector, statistics from Mintel's Global New Products Database (GNPD) also reveal a key shift in the focus of 'ethical' products: from animal-friendly to environment-friendly products.

In 2005, animal friendly food and drinks were the most popular ethical product launches, with 249 new launches that year. By 2009, the number of new introductions in this category more than doubled to 534.

However, the most impressive growth was seen in products claiming to have environmentally friendly packaging. In 2005, GNPD recorded only 4 new launches in this category, but by 2009 the figure increased to 2,598.

HOT LINKS

Food Music – Eat to the Beat
http://www.mixedup.com/foodsongs.htm

Here is a list of songs about food.....over 500 of them ! Artists such as James Taylor, Blondie, Smashing Pumpkins and the Beach Boys.....So much inspiration to be crammed into 3 minute tunes !

Food is art and art is food.
http://fineartamerica.com/art/paintings/food/all

Even artiiists have to eat....and most have painted their food at one time or another. From renaissance masters through to Andy Warhol, artists have been painting food into their canvasses for centuries. The website has several thousand contemporary works for sale.... Check out some of Greg Brown's work for cafe-cool food.

Algae is great.
http://www.growing-algae.com/

Algae is considered to be a super food and energy source for the future. Diverse from single cell organisms to 80 meter giant kelps, algae has the ability to photosynthesise like plants. This site gives great information on this wonderfood for those who like it slimey and green.

Whatever happed to space food sticks?
http://spaceflight.nasa.gov/living/spacefood/index.html

I so miss those little rubbery sticks that you could tear, stretch, mould and of course eat. I'm not even sure if astronauts even ate them but I sure felt like Armstrong every time I peeled back that silvery foil. NASA knows everything about space and deals with food in space on this page with heaps of interesting facts and issues. One small snack for man.

News about food in Australia
http://www.ausfoodnews.com.au/

Well you could call this site ' Australian Food News' which is exactly what they have done and is exactly what the content is all about....Food. With links to new products, legislation and international news, this site makes for an excellent browse over your lunch time sandwich.

WHAT IS A FOOD SAFE FLOOR?

By Karen Constable, HACCP International

Food safe flooring material is inert, impervious, non-absorbing and easy to clean. A food safe floor also has appropriate gradients, drainage systems, seals, joints and coving. The requirements of the Australian Food Standards Code are met as long as the floor is cleanable, non-absorbing, laid so that there is no ponding of water and unable to provide harbourage for pests. Other food industry standards have requirements for coving, and smooth solid coving of at least 75 mm height is recommended.

In addition to this, a flooring material that is 'food safe', is one that can be installed such that dust and volatile chemicals from the installation and curing processes do not have an adverse impact on the safety of the food.

> Be particularly aware of the potential for tainting of food products during the installation of fast-curing floor systems.

Resin-based flooring systems, such as epoxy resin and polyurethane-cement floors are very popular in the food industry. For these types of floors, both the product chosen and the installation process are critical to the quality and performance of the finished product. When choosing a flooring product, be sure to make sure that the supplier has appropriate expertise to recommend correct products for your specific food industry application. Floors in food handling areas are exposed to cleaning chemicals, corrosive food products and stream, which can render some flooring products unsuitable. The thermal properties of different flooring products should be well understood by the sales staff. A good flooring supplier will be able to provide information about the chemical resistance properties of the floor product against weak acids, strong acids, caustic materials, oils, and temperature fluctuations.

Expertise in installation is another area where your choice of supplier is critical. A poorly installed floor will result in drainage issues, coving problems and cracks, and each of these problems in turn can lead to harbourage of harmful bacteria in the facility. The installation process itself also has the potential to introduce contaminants to your food premises. Installation personnel, equipment, dust, aggregates, solvents and curing agents can become potential sources of contamination.

Choose a flooring installer who has experience in food facilities. Your installer should be able to give you detailed information about the expected duration of the installation service, the hazards to food safety from dust, grit and solvents - and where applicable a description of the containment and extraction methods used to control these hazards; requirements for cleaning following the installation; and exclusion/curing periods.

When the installation is due to start, spend some time with the installation supervisor, to explain any site protocols such as hand-washing, hair nets and foot baths. Identify work areas, and help to identify a path between work areas and vehicles which the workmen can take which avoids food handling areas if possible.

Be particularly aware of the potential for tainting of food products during the installation of fast-curing floor systems.

Fast curing resin-based flooring systems are commonly chosen for repairs and resurfacing of floors when installation time is critical. These floor types can accept traffic after just one hour, unlike standard epoxy systems which can take up to seven days to properly cure. Fast curing resin floors are commonly based on methyl methacrylates resins (MMA). Methacrylates are highly volatile with a strong smell, and have been known to cause tainting problems in foods. A well-publicised and very large recall of meat products in Australia in 2008 was attributed to tainting by methacrylates.

Smooth and impervious flooring provides no harbourage for harmful bacteria

CONTINUED ON PAGE 24

Drains and coving are important elements of a 'foodsafe' floor

A flooring installation company, Bethell Australia, which has been certified by HACCP International, has a very good understanding of tainting. The Managing Director, Shane Bethell, describes his company's procedure for controlling the risk of tainting:

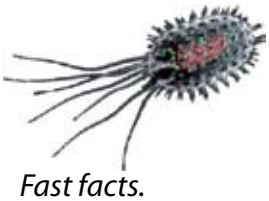
"We are dealing with chemicals, and controls need to be put into place to eliminate the risk of food products being contaminated. With the fast curing systems, they have a strong odour which can be absorbed into some food stuffs - it's mainly fatty foods which are susceptible. That risk is only present during the installation of the flooring, and after that it's simply a matter of changing the air and removing the fumes from the area. Firstly, before the service begins, move the susceptible foods out of harm's way, so they are not exposed to the fumes. Then it's a matter of installing extraction systems so that fumes are extracted to outside. Then bring in fresh air from outside after the installation is complete. We do that by creating an enclosed area, containing the work and controlling the air flow. We use air extraction systems and physical barriers, which range from temporary polythene sheeting to building temporary sandwich panel walls."

Shane and his team of technicians are trained in best practice procedures for installations in food premises and have a deep understanding of the industry and its requirements. Make sure your installer has a similar background and reference their work with previous customers.

Resin-based flooring systems are excellent choices for food handling facilities. They are inert, impervious and they look fantastic. Be sure to choose a product which has the correct degree of chemical and thermal resistance, and an installer who can deliver a great finished floor without compromising your operations.

HACCP International endorses a number of suppliers of food safe floors. The most recent being Altro which has extensive operations in UK, Europe, Asia and Australia. Altro also provides a range of non-resin based food safe flooring products.

For more details visit www.altro.co.uk



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.

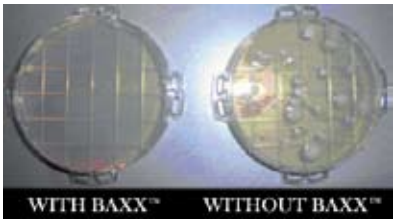
Unique cold plasma technology to create Hydroxyl Clusters which naturally kill all airborne pathogens. These groups also react with odour causing chemicals such as ammonia and methane gas to produce neutral compounds such as Co2, Nitrogen and Water. The harmless way to create a safer and cleaner environment.

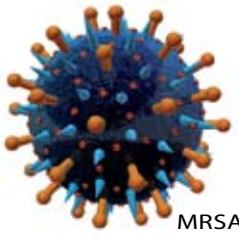
BACTERIA : testing on air-borne pathogens found the Baxx to be up to 99.9% effective in removing pathogens after 90 minutes.

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
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"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	AACLAIM BREMA - ICE MASTER SYSTEMS FOOD SERVICE EQUIPMENT (FSE) HOSHIZAKI KENCAN LTD MACKIES ASIA PACIFIC (I) S.P.M. DRINK SYSTEMS S.r.l. (I) TOMKIN
CLEANING EQUIPMENT	CARLISLE CLEANING EQUIPMENT CHAMPION MACHINERY HK LTD (I) ESWOOD GLOBAL CHAMPION (Shanghai) LTD (I) OATES CLEAN SABCO STEAMASTER AUSTRALIA
CLEANING CHEMICALS KITCHEN MATERIALS AND SANITATION PRODUCTS	3M ACTIVEION (I) AVANTI CHEMICALS BAXX (I) BIOTECH-OZONE CHAMPION CHEMICALS LTD CLOROX CONCEPT LABORATORIES DEB GROUP LALAN SAFETY CARE OATES CLEANING PROARMA SCA HYGIENE

CLEANING & MAINTENANCE SERVICES TO THE FOOD INDUSTRY	ACE FILTERS AERIS HYGIENE SERVICES (I) BORG CLEANING CHALLENGER CLEANING SERVICES ICE CLEAN INDUSTRIES INTEGRATED PREMISES SERVICES ISS HYGIENE SERVICES METROPOLITAN FILTERS OZ TANK PINK HYGIENE SOLUTIONS
CLOTHING, DISPOSABLE GLOVES AND PROTECTIVE WEAR	LALAN GLOVES SAFETYCARE LIVINGSTONE INTERNATIONAL PARAMOUNT SAFETY PRODUCTS RCR INTERNATIONAL STEELDRILL WORKWEAR & GLOVES SCA HYGIENE
FACILITY FIXTURES, FLOORING AND FIT OUT	ALBANY DOORS (I) ALTRO SAFETY FLOORING & WALLING (I) BASF CONSTRUCTION - UCRETE BLUE SCOPE STEEL (I) CARONA GROUP DMF INTERNATIONAL DOORS (I) DEFLECTA CRETE DYNAMIC COMPOSITE TECHNOLOGIES DYSON AIRBLADE (I) GENERAL MAT COMPANY

FACILITY FIXTURES, FLOORING AND FIT OUT	HALTON (I) 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 EQUIPMENT COMPONENTS & CONSUMABLES	BSC MOTION TECHNOLOGY ENMIN (I) FCR MOTION HARRINGTON ELECTRICAL MOTORS (I) LANOTEC (I) SICK SMC PNEUMATICS (I)
STORAGE EQUIPMENT & PACKING MATERIAL	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 AND DATA SYSTEMS	AERIS HYGIENE SERVICES (I) CAREL DANFOSS DIGINOL (I) 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

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