RSA | FOOD & DRINK

FIRE
2015'S #1 CAUSE OF MAJOR LOSS

What can you do to protect your business?

2015 IN PICTURES

NESTLE PURINA PETCARE
February 2015

Fire involving six large tanks of animal fat broke out. Firefighters worked to protect a 30,000 litre tank of phosphoric acid near the blaze.

A C JENNER & SON
September 2015

Factory producing toffee apples for Halloween was destroyed in a fire.

SHAPLA FROZEN FOODS
July 2015

A blaze ripped through factory in Essex. Frozen fish left to rot creating swarms of flies from millions of maggots.

HOLME FARM SITE
November 2015

Packing plant warehouse destroyed due to an electrical fault in Kirton Holme, Lincolnshire.

SELBY SALADS
September 2015

Arson destroyed manufacturing site in Camblesforth, North Yorkshire.

Source: 2015 BBC, Food Manufacture, Daily Mail

FOCUS ON FOOD & DRINK MANUFACTURING

The food and drink manufacturing industry is one of the most competitive sectors in the UK, with nearly 52,774 manufacturers registered employing 378,000 people*. In an industry where timescales are tight and customers demand high standards, there is a sharpened focus on identifying and controlling risks posed by the various hazards in the sector.

New or previously unrecognised hazards are regularly heralded as the latest risk within the sector. Recent newly recognised risks have included commodity pricing, legislation, supply chain integrity, contamination and cyber. Whilst these emerging risks are real and need to be considered, it is important to remember the operational risks from interruptions to production such as fire.

The risks associated with the food sector have proved to be a challenge to risk managers, insurers and fire safety professionals for a number of years.

A particular combination of dangerous processes, common hazards and combustible construction has resulted in an increasing number of severe property damage and business interruption losses. In an industry which is often characterised by narrow profit margins, dominant customers, increasing globalisation and external compliance pressures such as hygiene and food safety, these factors combine to give the food industry a perception that it is not well risk managed.

*Source KPMG 2013 Food & Beverage Industry Outlook Survey

WHAT INSURERS ARE SEEING

Separately, most recent research by Swiss Re in their annual Sigma Study, before the devastating floods in the UK in December 2015, found that total economic losses from natural and man-made disasters in 2015 will be over £56 billion with around 40 percent of this total covered by insurance. £6 billion of this amount was directly attributable to man-made disasters with the largest being the explosion in Tianjin in August 2015.

Other recent research detailed that the major cause of business interruption claims was from fire or explosions due to human factors. Most insurers would agree with this research and the growing complexity of business interruption following an incident, particularly in the food industry where there can often be niche supply chains for ingredients or packaging into dedicated, complex manufacturing facilities that carry accreditations from major retailers.

THE VIEW OF RISK MANAGERS

Research gathered from risk managers in the food industry by RSA found that 46% of risk managers considered supply chain weakness to be an "insurance headache". A further 30% highlighted business interruption and crisis and recovery management as key "headaches".

Despite research and guidance documents published in the last decade relating to prevention and minimisation of fires, the food industry continues to suffer from a number of fires that have caused losses, interruption and in some cases destruction of facilities and a search of food industry fires in 2015 highlights the continued frequency and severity of fires that are still occurring in the food industry. Therefore it is important to revisit the causes of loss and develop strategies that can be undertaken to prevent or alleviate them.

Within RSA we are able to work with our claims teams and actuaries to understand the causation factors of the frequency events that lead to losses. In line with industry expectations, these broadly fall under the causation headings of:

- Electrical;
- Arson;
- Hot Work and;
- Contractors.

An understanding of how incidents originate and develop into major claims, coupled with knowledge of food industry special hazards, enables insurers to use risk engineering as a key tool to prevent and minimise the severity of losses occurring. In 2015 working extensively across the food industry, RSA Risk Engineering team has collected data at each site we have visited and used our powerful application, RSAred, that allows customers to model an array of data in real time in order to assist in risk portfolio analysis. This includes recommendation tracking, risk profiling, risk improvement modelling. We are able to pool this data to ensure we understand common deficiencies and what we can do to help customers reduce the frequency and severity of losses.

RISK PROFILING

We work with companies to produce a Risk Profile using a quantitative assessment method which provides a benchmark, helping identify the inherent hazards at each facility, the risk management controls in place to mitigate those hazards, and where there are deficiencies recommendations are made to address these.

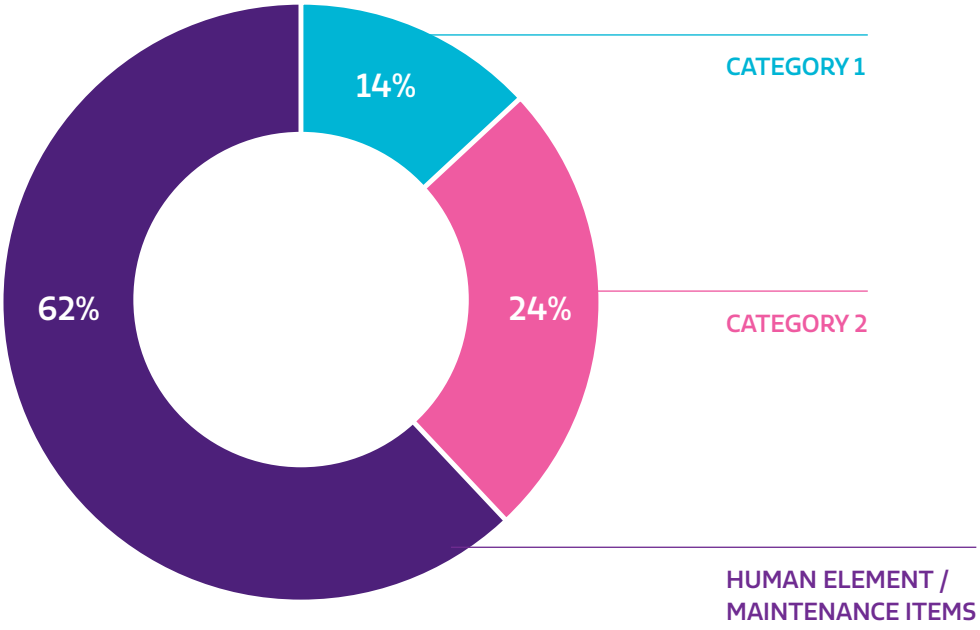
These recommendations reflect industry best practice, but are not mandatory. However, they are used by insurers as a key performance indicator of risk management, particularly around the response rate and completion rate.

Using RSAred to pool data from ten multinational food and drink companies visited for risk engineering purposes in an 18 month period, our data sample comes from over 200 locations visited in 22 countries.

Over 1500 recommendations were made to address deficiencies found, which is an average of seven per facility.

RISK RECOMMENDATIONS

THE PERCENTAGE OF RECOMMENDATIONS MADE BY "CATEGORY"



62% of RSAred recommendations made addressed human element or maintenance items. These refer to management practice and procedures. Typically they carry no capital cost but address a wide range of local issues including the control of inception risks and training.

24% resulted from Category 2 items, being recommendations either with a loss expectancy of less than 25% of the combined property damage and business interruption loss potential or that address important reliability issues.

The final 14% were classified as Category 1, addressing loss expectancies greater than 25% of the combined property damage and business interruption loss potential. Whilst funding for these items will normally require corporate approval, completion will significantly improve the risk profile of the site.

Our data shows that completion of these recommendations is directly linked to risk profile improvement and reduction in loss potential at each facility visited.

TOP RISK DEFICIENCIES

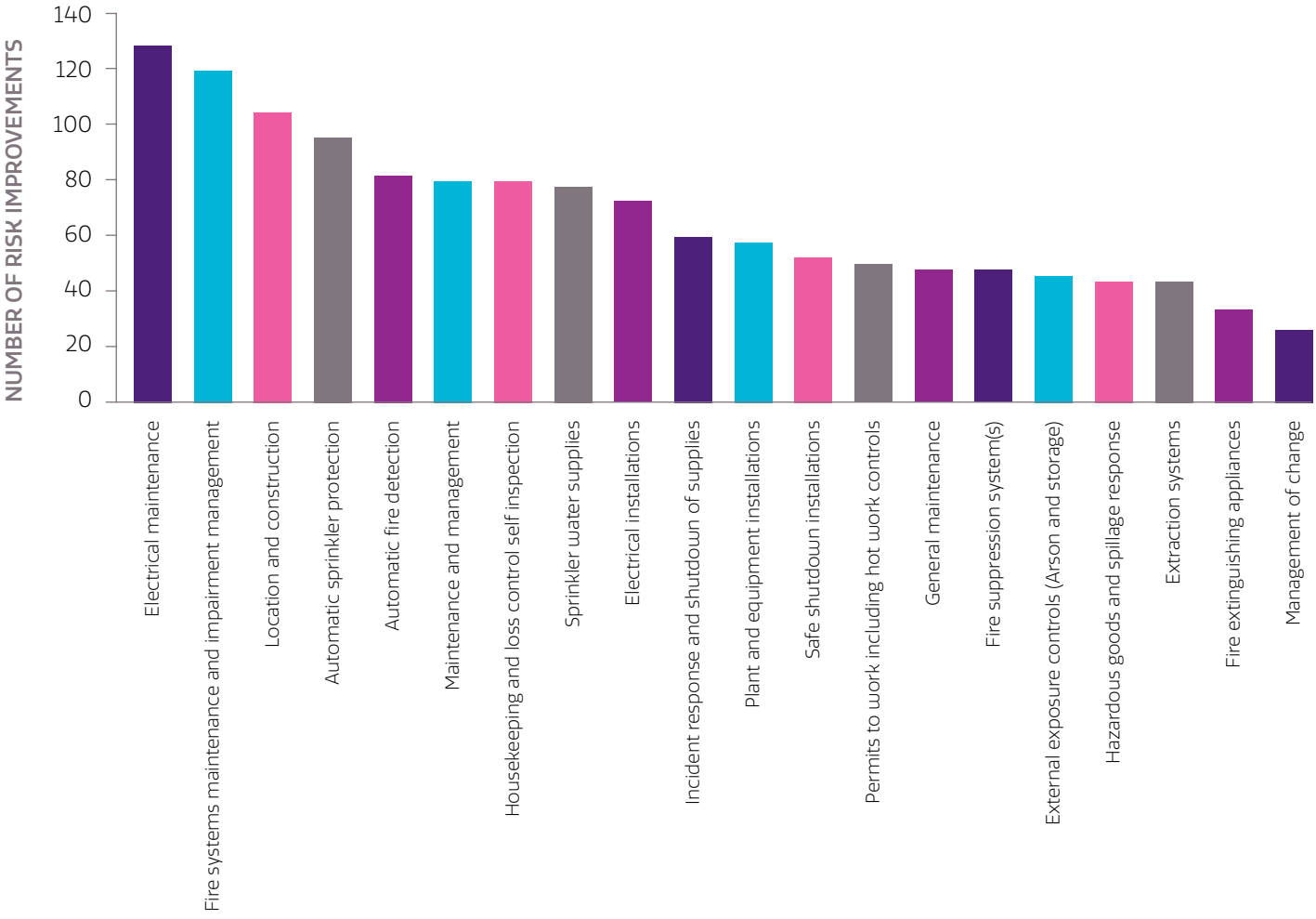
Analysis of RSAred's top 20 risk factors (below) shows that **electrical maintenance** is the factor that is most commonly in need of attention, which correlates with the top causes of loss analysis. Further review shows that recommending thermographic imaging of key electrical systems is most common, followed closely by electrical maintenance programmes that include tightness testing or transformer maintenance.

Management of permit to work systems, particularly **hot work** and **external exposure controls** both also factor in the top 20, again in line with our findings.

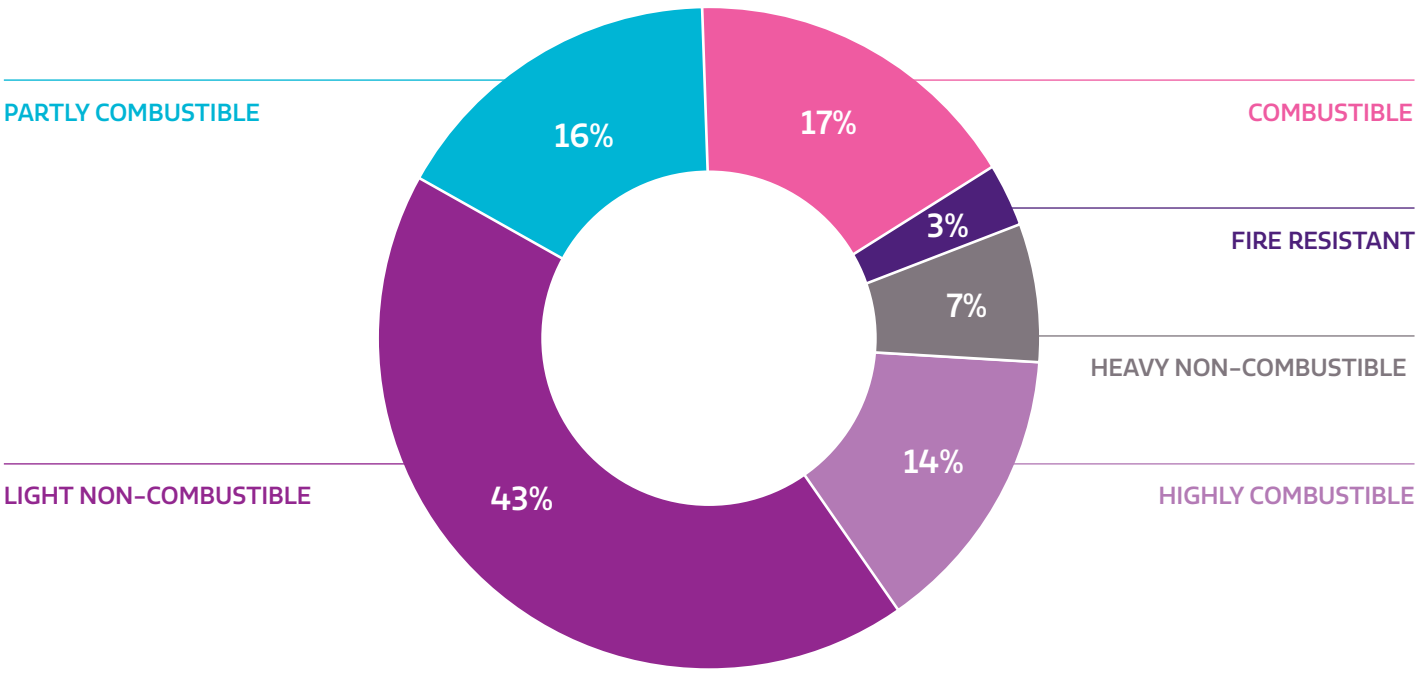
This follows recommendations made to address legacy construction issues.

Maintenance of installed systems is critical to ensure that they function effectively.

Management of impairments ensures that where systems have been taken out of service for maintenance or any other reason, that they are managed back into full service as quickly as possible.



CONSTRUCTION



The issues surrounding combustible construction in the food industry were identified in the 1990's when there were a number of high-profile losses in the industry and tragic deaths, notably the Sun Valley fire in 1993. A trend around type of construction and ease of fire spread was noticed in factories that used "sandwich panels". Interestingly our analysis shows that 53% of the buildings visited are assessed as having non-combustible construction, suggesting that steps have been taken to start to address this legacy issue.

It is important to remember in an industry that is often high volume and low margin, combustible construction still remains in many facilities today, which explains the propensity of recommendations to address this factor.

Our view is that recommendations are made most commonly under this factor to help manage construction around special hazards in the food industry, such as smokers, fryers and cooking systems, coupled with recommendations for localised fire protection systems. This explains the appearance of recommendations under the factor of "location and construction" and "fire suppression systems" and helps us begin to understand the approach being taken in the industry to special hazard protection and construction management.

RISK PROFILING

RSA uses a Quantitative Risk Assessment as a highly visual and engaging way of conveying site property damage and business interruption risk profile. Its benefits include:

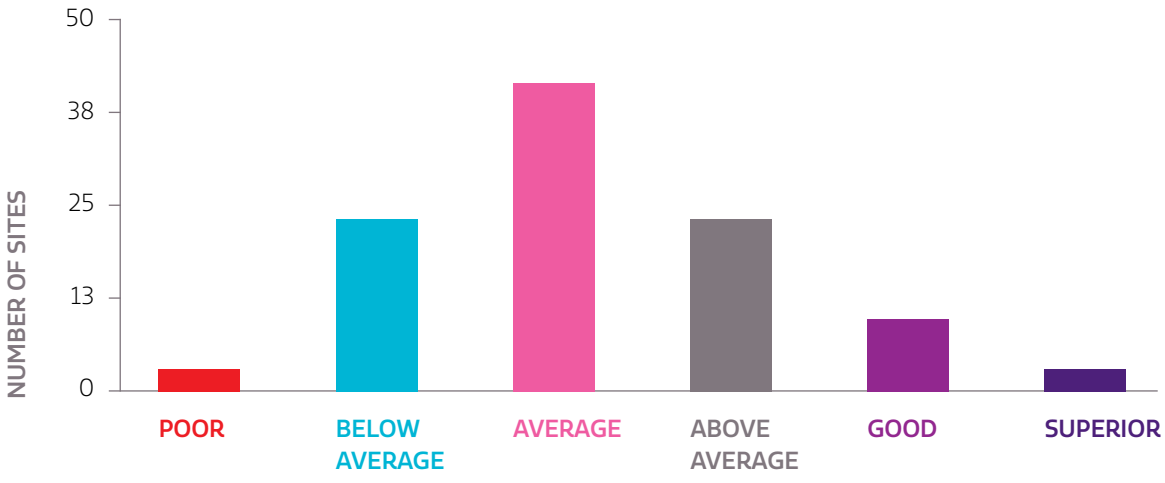
- The consolidation of a complex risk engineering evaluation into a simple, uniform graphical output;
- The quantitative measurement of risk quality, and of changes in risk quality in response to recommendation completion;
- Benchmarking and easy comparison of site risk quality across multi-site operations;
- The ability to instantly identify underperforming sites and focus risk improvement efforts accordingly;
- The tracking of risk quality over time.

Pooling data from all sites visited as part of our research, shows a normal distribution spread of risk quality, with 41% of facilities visited falling into the "Average" profile.

When the "Below Average" and "Poor" facilities are further analysed, unsurprisingly the average number of recommendations made at these facilities is 11 and 15 respectively, comparing unfavourably with the overall average of seven, or indeed when compared with the average of three at "Superior" facilities.

Certainly the food industry is one of the most competitive and dynamic industries in the UK. With innovation in product development and techniques for processing and producing food, it is important for insurers and risk managers to understand the sector and be able to respond intelligently. However, it is worth remembering the continued focus on man-made disasters and particularly the preventable losses that a good risk engineering programme, in partnership with your insurer, can highlight. Together a programme to address these and improve Risk Profiles, while reducing loss expectancies should be implemented. All of this is with a view to prevent incidents that turn into losses which can lead to long interruption periods.

THE RISK PROFILE OF ALL OF THE SITES VISITED



PREVENTING LOSS

WHAT CAN YOU DO

Managing their business risks is something that all companies do and managing risks that can lead to physical loss as a result of fire is part of that process. Working with your insurer you can use their expertise and systems to identify risks and have a plan in place to mitigate the risk.

As part of a property risk prevention visit programme, working with your insurer's risk engineering consultant you will be able to identify common food industry hazards and plan to mitigate their effect. This may be over and above any statutory duties that you have, but this risk management will begin to help reduce the frequency and severity of any losses that you may incur.