

Case study 6 – Inappropriate use of a private supply by a food business can give rise to substantive economic, reputational and regulatory costs

This case study relates to the use of a contaminated private water supply by a large food factory that resulted in the authorities issuing a Detention of Food Notice and the granting, by magistrates, of a Food Condemnation Order under Section 9 of the Food Safety Act 1990. The consequential direct costs incurred by the food company were of the order of £1million. Both the company and the managing director were prosecuted, found guilty by the courts of several offences and fined a total of £5,000.

The food premises site

The factory opened in 2006 providing specialist bread products for several national catering companies and major supermarkets. There were about 150 employees on site and around 80% of the bread product was supplied to a single international sandwich chain. The site was located on an industrial site with a history of other industrial and manufacturing uses. Immediately adjacent to the food premises was a car plant that had been operational since 1968. The site also comprised an abandoned waste disposal site for the incineration of a wide range of industrial chemicals and other hazardous waste material.

The water supply arrangements

In March 2010, the food company, when asked directly by the local authority indicated use of a borehole for food production use, thereby a private water supply. This water supply had probably been in use for some time without the knowledge of the local authority or any authority with an interest in such matters. Once aware of the supply, the local authority carried out a risk assessment and monitoring as required under the private supply regulations. There was a public mains water supply to the factory providing a supply of water for domestic purposes for employees (hand wash basin, toilets and kitchen). In early December, the water company disconnected this public supply due to non-compliance by the food factory with statutory Notices served previously requiring remedial action to mitigate a significant risk posed by the food premises plumbing arrangements whereby untreated borehole water could enter the public mains. By coincidence, that same day, the local authority collected its planned private supply regulatory compliance monitoring sample from the borehole.

A fortnight later the local authority was notified by the laboratory that the borehole sample results indicated the presence of volatile organic compounds (VOC's). Following an investigation, in early January a further water sample taken by the local authority confirmed the presence in the private supply source of trichloroethene (TCE) at a level of 210µg/l (health-based standard for TCE in water is 20µg/l). This compound is primarily used in metal degreasing operations. Following this finding, the local authority sought advice from Public Health Wales (PHW), the Food Standards Agency (FSA) and the Drinking Water Inspectorate and then served a Regulation 18 Notice restricting the use of the private supply, effectively prohibiting the use of the borehole as an ingredient in food processing or for drinking water. This Notice meant that all food production was stopped pending further investigation. As a further precaution, a Detention of Food Notice under Section 9 of the Food Safety Act 1990 was also served on the same date. This Notice required the detention of all foods made at the premises between the date of collection of the first adverse water sample (2 December) and the

date of the Notice (30 January). On the next day, the food company was advised to commence the withdrawal from their customers of all bread products made during this period. Two weeks later Magistrates granted a Food Condemnation Order (under Section 9 of the Food Safety Act 1990) requiring foods made on and between the 2 December and the 31 January to be disposed of.

The cause and remedy of the water contamination event

The investigation concluded that the borehole water contamination arose from a combination of several factors. The food factory had been reducing the use of the public supply and increasing abstraction from its borehole over a period of time leading up to when the public supply was disconnected. At this point abstraction was around 150,000 litres a day and this occurred at a time when exceptional winter weather conditions had resulted in groundwater levels being elevated well above those previously recorded. These conditions consequentially mobilised solvent contaminants known to be present in the local aquifer below the nearby disused waste site.

Enquires made with Natural Resources Wales (NRW) established that there was no abstraction licence in place for the food factory borehole. From other information available to the local authority and the water company the amount of water used by the food factory was greater than the threshold (20 cubic meters a day) requiring an abstraction licence to be applied for and granted by NRW. By failing to apply for a licence, the food factory operated the private supply without accessing knowledge held by NRW about the groundwater quality and the local catchment hazards thereby failing to ensure that water used as an ingredient in food products was wholesome. The food factory also failed to notify the authorities in a timely manner conducive to allowing these authorities to complete the work necessary to ensure public safety. For example, before use of the private supply as an ingredient in food products, a food factory should have in place an effective, comprehensive and appropriate Hazard Analysis Critical Control Point (HACCP) procedure as required under food safety legislation.

In order to be able to resume food production on site, the food company needed to acquire a demonstrably wholesome and safe supply of water. To achieve this, the food factory had to permanently disconnect the contaminated borehole supply and commission a new connection to the public mains supply. The previously disconnected domestic mains supply was not of an adequate size to support food production on site therefore a new larger mains connection to water industry standards had to be laid under the supervision of the water company. Additionally the food company had to clean and reconfigure the internal plumbing arrangements and bring the whole water system into compliance with the water fittings regulations. After completion of all of these works and before the new mains water supply could be made available for use, the water company through its own inspection and sampling regime sought and obtained evidence that water at the point of use was wholesome and the entire water system was fittings regulations compliant.

The offences for which the food company and the managing director were charged and found guilty subsequently were twofold: the abstraction of water from a source at or above the permitted level without having first obtained a license from the relevant statutory body for that abstraction and; failure to ensure an adequate supply of wholesome (potable) water was used ensuring that foodstuffs were not contaminated.

Learning points

This event and the associated prosecution case highlights the documented cost impact (£1million) falling on a single food premises when it had need to stop production, call back product from customers and commission a new water supply due to a situation that arose solely as a consequence of that business choosing to rely on a private water supply that did not meet quality standards. The case also shows how the reputational damage to a food business for a single incident far offsets the cost of regulation (£1million for a single incident compared to recurring costs of the order of £500 a year).

This case study highlights a need for systems of food safety assurance to contain more explicit information about potential water-related hazards and the actions that need to be embedded in HACCP procedures to identify and mitigate risk and secure compliance with both water and food law. The food company was accredited by the British Retail Consortium (BRC) and employed persons whose role was to deliver the systems and procedures needed to maintain this accreditation, which provides quality assurance to the food business to assist in demonstrating that safe systems of food production are in place. When investigating this contamination event the authorities found that the BRC audit report was deficient in a number of ways, in particular, it failed to identify the existence and use of a private water supply. This revealed a weakness in the Food Standards Agency (FSA) delivery model that requires to be remedied by ensuring in future that local authority and private sector auditors ask for details of abstraction volume and evidence that the relevant authorities have been informed.

This event highlights the gap in the registration requirements for private water supplies below 20 cubic metres a day (from the duty to apply for an abstraction licence) and the absence of effective enforcement of the requirement for all borehole locations deeper than 15m to be notified to the British Geological Survey (BGS). This results in significant gaps in the information available about borehole locations and usage to those authorities charged with responsibility for securing public safety. A previous proposal to close this known information gap (by introducing into the private supply regulations a duty on private supplies owners and users to notify the local authority) was not progressed due to legal impediments. However, local authorities can require residents in their area to register new private supplies in their area with them. Failure to do so can result in the serving of a Section 85 Notice (to provide information to allow a local authority to carry out its duties) which is an offence not to comply with. The business involved was large, serving as a strong reminder to risk assessors in the area of both food and water safety, of the need to use risk assessment tools and scoring systems that put adequate weight on scrutinising and evaluating confidence in management irrespective of the size of the business. In this case, the local authority used the Drinking Water Inspectorate's private supply risk assessment tool to update its original risk assessment generating a comprehensive assessment of the whole supply and the associated management arrangements, giving an action plan in which they could have confidence. For food premises that use a private supply, it is recommended that the quality assurance systems relied upon by the FSA and BRC in future trigger such food businesses to notify the local authority. Also, evidence showing that an up to date risk assessment using the Inspectorate's risk assessment tool is in place and records are kept demonstrating how the identified risk mitigation actions are embedded in HACCP procedures and that they are being carried out effectively.

This event confirms that water companies have a role in supporting local authorities with their food safety role by putting in place additional information sharing arrangements e.g. procedures to notify a local authority of any fittings enforcement Notices served on a food premises, especially where there is evidence that a private supply is being used or mains supply usage has declined or ceased but the food factory has not closed down.

Like many other case studies, the need for good liaison between different departments of a local authority was reinforced, e.g. food and water safety functions as were the benefits of the more rigorous risk assessment tool now available from the Inspectorate.