

Doc B3.4 Technical standards

Having reviewed the relevant technical guidance notes (TGNs) responses to the relevant underlined sections in TGN (1.00) are presented in Table 1 and use of indicative BAT for the food and drink sector in TGN (6.10) are presented in Table 2.

Table 1 - How to comply with your environmental permit (EPR 1.00)

Relevant underlined requirements	Application at Farmers Boy (Deeside) Ltd
Emissions of substances not controlled by emission limits to surface water and sewer Subsurface structures Storage areas for IBC, drums, bags, etc	There are comprehensive drawings for surface water and trade effluent drains and a Class I oil separator has been fitted prior to surface water emission point W2 during recent factory expansion. There are no other relevant subsurface structures or sumps. Storage outside restricted to wooden pallets, empty plastic Dolavs, crates etc and non-hazardous wastes including baled cardboard, compactor, category 3 animal-by-products in covered containers and waste oil from maintenance activities in a proprietary metal storage tank all on hard standing areas.
Point source emissions to air Point source emissions to water	Operator is generally complying with all of the highlighted points in TGN (EPR1.00) and described in H1 environmental assessments: Doc B2.7.2 on surface water discharges (basic) to sewer Doc B2.7.3 on air emissions from combustion activities. Additional responses to related points in the sector specific TGN (EPR6.10) in Table 2 below.

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Table 2 - How to comply with your environmental permit for the food & drink sector (EPR 6.10)

No.	Indicative BAT	Application at Farmers Boy (Deeside) Ltd
1.1	Accident management	
1	Automatic process controls are used backed up by manual supervision, both to minimise the frequency of emergency situations and to maintain control during emergency situations	Steam and hot water boilers for cooking and pasteurising meat and maintaining hygienic conditions throughout the facility are critical for processing and food safety. Established and implemented documented control procedures including HACCP for most activities under normal and abnormal operating conditions.
4	Ensure gross fat, oil and grease (FOG) does not block drains	Internal fitted with catch-pots where appropriate. DAF plant before trade effluent discharged to sewer.
1.2	Energy efficiency	
5	Minimise water use and use recirculating water systems.	New Alkar cook/chill systems are currently being installed to contribute to increased capacity and improve energy efficiency. Systems use recirculating chilled brine for cooling meat. Cooling achieved more rapidly and reduces use of less efficient blast chilling rooms. Established and implemented documented control procedures including HACCP for activities under normal and abnormal operating conditions.
6	Ensure efficient operation of the refrigeration system	
7	Optimise efficiency measures for combustion plant	
1.3	Efficient use of raw materials and water	
1	Recycling water within a unit process or group of processes without treatment.	New Alkar cook/chill systems currently being installed to contribute to increased capacity and improve energy efficiency. Systems use recirculated brine for cooling meat.
1.4	Avoidance, recovery & waste disposal	
1	Chosen routes for recovery or disposal represent the best environmental option.	Operators are maximising opportunities for recovery and residual disposal with selected contractors demonstrated in H1 assessment (Document B2.7.4).
2	Schedule production to minimise product changeovers and clean downs.	Operators are minimising changeovers and clean downs where appropriate to maximise efficiency. Documented control procedures including HACCP established and implemented for most packing activities.

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No.	Indicative BAT	Application at Farmers Boy (Deeside) Ltd
3	Packing line efficiency	Operators continue reducing weight of packaging in collaboration with supermarket working towards Courtauld Agreement objectives on packaging reduction (E.g. reducing gauge of packing films, replacing paper labels with printed film and use of shelf-ready packaging).
2.2	Process Control	
1	Assess product loss against benchmarks.	Operators have established and monitor key performance indicators (E.g. slicing yields).
5	Carry out any appropriate measurements listed in Table 3 of the sector technical guidance note.	Operators have established, documented and implemented comprehensive control procedures including HACCP for most activities under normal and abnormal operating conditions to ensure food safety, minimise food spoilage and waste of raw materials and energy (E.g. cooking and roasting ovens with minimum time, temperature without overcooking, chilled storage temperatures for raw materials and products and during slicing, etc).
2.4	Heat processing using steam for pasteurisation	
1	Use recirculating systems to recycle water (Once through cooling systems should not be used)	New Alkar cook/chill systems are currently being installed to contribute to increased capacity and improve energy efficiency. Systems use recirculating chilled brine for cooling meat. Cooling achieved more rapidly and reduces use of less efficient blast chilling rooms. Established and implemented documented control procedures including HACCP for activities under normal and abnormal operating conditions.
2.5	Cooling, chilling and freezing	
1	Use recirculating systems to recycle water (Once through cooling systems should not be used).	New Alkar cook/chill systems are currently being installed to contribute to increased capacity and improve energy efficiency. Systems use recirculating chilled brine for cooling meat. Cooling achieved more rapidly and reduces use of less efficient blast chilling rooms. Established and implemented documented control procedures including HACCP for activities under normal and abnormal operating conditions.
3	Energy efficient techniques should be applied.	
2	Use detailed drainage plans to ensure that ammonia leaks cannot be discharged to surface waters.	Operators plan to replace HCFC refrigeration systems with ammonia in 2011. There are comprehensive drainage plans for surface water for planning containment and leak management.

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No.	Indicative BAT	Application at Farmers Boy (Deeside) Ltd
2.7	Cleaning and sanitation	
1	Wherever possible raw materials and product should be kept out of the wastewater system	Owing to strict hygiene requirements when handling raw and cooked meat to avoid cross-contamination with pathogens or reduction in shelf-life raw materials and products are kept away from the wastewater system.
2	Equipment design	Operators have incorporated all 17 of the BAT listed in the TGN for Equipment Design, Good Housekeeping and Manual Cleaning. All have been established and implemented for nearly all activities throughout the installation and are documented in comprehensive hygiene procedures.
3	Good housekeeping	
4	Manual cleaning	
5	Cleaning chemical usage	Specified individuals are trained in the proper handling, making up and application of working solutions.
7	Dry clean up techniques	Used wherever practicable to avoid using water unnecessarily and incorporated in relevant documented procedures.
3.1	Point source emissions to water	
2	Keep raw materials and product out of wastewater	Operators incorporate all 4 BAT listed in the TGN for keeping materials out of wastewater including dry clean-up, catch pots in drains and DAF plant to remove FOG and balancing of flow to sewer.
3.2	Fugitive emissions	
1	Inspection of refrigeration plant	Operators continue to appoint specialist refrigeration engineers for all installation, regular maintenance including leak detection and decommissioning.
2	System log book	A system log book is being maintained including all 3 BAT points listed in the TGN.
3.4	Monitoring emissions to sewer	Flow rate is continually monitored and COD/BOD are routinely measured by the trade effluent undertaker Welsh Water Ltd.