



Beer Module Guidance Notes

Issue 1, June 2015

This document is to be used in conjunction ONLY with SALSA Guidance Notes Issue 3 (June 2012)









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SECTION 1 - PREREQUISITE CONTROLS

Ref	Requirement	What do I have to do to comply with this Requirement?	How can I demonstrate this?	Tools & Tips
1.2.10	Areas where tasting is allowed shall be clearly identified.	Areas where sampling is allowed shall be identified (away from open product or raw materials).	Allowable areas should be included in site hygiene rules/staff handbook.	
1.3.4	Vessels, including those with Clean In Place (CIP) systems, shall be checked to ensure that no detergents remain. Residual detergents, where used, shall be drained.	This may take the form of a visual assessment or testing the pH of the final rinse water with either paper or a pH or conductivity meter. Flow meters may also be used to ensure that the scavenging pump runs at a faster rate than the feed pump.	Record results on brewing or fermentation sheets.	
1.3.5	The brewing plant shall be subject to a caustic clean at a frequency determined by risk assessment. Apparent Total N-nitroso Compounds (ATNC) analysis shall be used to assess the effectiveness of cleaning.	 Plates shall be lifted for each clean and grain washed away. The frequency at which the brewing plant is caustic-cleaned can be based on microbiological results or ATNC levels. ATNC results higher than 20 parts per billion (ppb) do not meet industry guidelines and the reasons for this shall be investigated and suitable Corrective Actions taken to resolve the issue. 	Include in cleaning schedule and record when done.	
1.4.8	In 'plate heat exchangers', particularly those using glycol, product shall be at a higher pressure than coolant. Maintenance checks shall be in place.	 You should be able to show maintenance records to demonstrate that the heat exchanger is regularly serviced. The level of the glycol header tank should be checked and any fall investigated and any coolant leaks must be repaired. If interior coils are used for cooling, any joints must be positioned so that they cannot drip into vessels. Tanks with jackets shall form part of the maintenance schedule with inspections to check that there is no corrosion. 	Include servicing in maintenance records and record any issues.	
1.4.9	Where beer or water is sterile-filtered, appropriate pressure differential tests shall be in place.	0.45μ filters shall be used and checked in place. Pressure differential tests shall be in place for each run at least at the start and end of each run.	Keep records of checks.	



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1.4.10	For final packages, tests shall be in place to test that they have been cleaned and are empty.	 Casks shall be washed on the day they are required but, when a number are washed before (no more than 2 days in advance) in order to start up, they shall be fitted with a keystone and loosely fitting shive. It would be Good Manufacturing Practice to rinse these with a residual detergent immediately before use. For bottle rinsers, checks (at start and end of run and preferably hourly throughout the run) shall be in place to confirm that there is sufficient water pressure and that jets are not blocked – water should reach the base of all inverted bottles. For returnable packages, tests shall be in place to ensure there is no residual detergent present. If Empty Bottle Inspectors (EBIs) are in place, the EBIs shall be presented with test bottles (start, end and hourly minimum). For automatic washers, the manufacturer's recommendations should be followed. For manual washing (minikegs, etc), visual inspections should be in place. Where Intermediate Bulk Containers (IBCs) are used (for example to transport beer to a contract packager), it is preferable that a 'one-trip' liner is used. If reusable IBCs are used, checks must be in place to ensure that they are clean before they are re-used. 	Records should be retained on packaging and/or dispatch sheets.	
1.6.5	Malt and hops shall be stored in such a way as to prevent deterioration or contamination.	 Storage to be clean and dry. Hops should preferably be stored cool but must not be subjected to heat. Raw materials to be arranged in such a way as to enable a First-In First-Out (FIFO) approach to stock rotation. Any external storage facilities shall be accredited to a third party standard or visited regularly. 	Could be included in site hygiene checks.	
1.6.6	Suppliers of services, such as contract bottlers, shall be approved and controlled.	 This can take the form of third party accreditation or an audit of the supplier by brewery personnel. It is advisable to oversee an occasional bottling run to ensure that systems are satisfactory and being followed. 	The easiest way is to keep an up-to-date copy of any third party certification (eg SALSA or BRC) that the service provider has.	
1.8.4	If spent grain, yeast or ullage is sold, or given for animal feed, where product from the animals will continue through the food chain, this must be included in the HACCP plan.	 Systems are operated by the Brewing, Food & Beverage Industry (BFBi) and Feed Materials Assurance Scheme (FEMAS); if you operate to these, the Requirement will be considered as met. Spent grain shall be regularly removed. Grain awaiting removal shall be stored so as to minimise any chance of contamination or pest infestation. Any spent yeast shall be stored cool if it passes into the food chain. Similar accreditation systems to those for spent grain are available. 	Retain certificates for accreditation. Include in HACCP plan. Check storage temperature.	
1.8.5	Recycling/purification shall be undertaken where economic. Effluent plants shall be positioned so as not to affect the product.	 Consider the economics of reducing effluent. The positioning of effluent plants shall be away from entrances. Reed beds can be effective but the possibility of pest infestation should be considered. 		



SECTION 5 – LEGAL REQUIREMENTS

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5.1	The brewery shall be registered as a food premises.	Register with local authority.	Records of EHO visits or retention of the registration number sent by the local authority.	
5.2	The brewery shall be registered with HMRC.	Register with HMRC.	Duty records or registration document.	
5.3	Alcohol by Volume analysis shall be conducted to meet HMRC requirements. The analytical laboratory shall be certified to ISO 17025.	Alcohol by Volume (ABV) analysis must be conducted at least annually on each product type.	Conduct analyses. Contract a laboratory that is accredited and keep a copy of the accreditation certificate. Ensure the scope of accreditation includes the analyses that are requested.	
5.4	The brewery shall have adequate product liability insurance.	Level of insurance dependent on the size of the business but a minimum of £5M is recommended.	You should have your insurance certificate available for the auditor to inspect.	
5.5	ABV analysis of cask and bottle- conditioned beer shall be undertaken at the end of conditioning.	Conditioning in either cask or bottle will produce additional alcohol. Checks need to be undertaken to ensure this additional fermentation does not make the final ABV higher than the allowed tolerance of the labelled ABV.	Retain certificates of analysis.	

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SECTION 6 – QUALITY REQUIREMENTS

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6.1	The beer shall be tasted to ensure it meets product specification and is of good quality before packaging. Tasters shall be experienced and/or trained.	 Beer should be tasted at all stages of production and passed as fit to package. Shelf-life tests shall be in place to monitor flavour changes. Tasters shall be able to recognise potential flavour defects. The auditor will expect to see a tasting during the course of the audit. 	Brewing and packaging sheets are the easiest method of recording 'pass to the next stage'.	
6.2	Routine analysis shall be used to check the tasters' assessment of bitterness etc.	The site shall have a schedule of routine analyses to monitor tasters' assessment. The schedule must include both the tests to be completed and frequency of testing. As a minimum, the testing must include bitterness and colour. Where results identify a difference between analysis and organoleptic testing, tasters shall be retrained.	A spreadsheet is an easy way for recording both the schedule and the results.	
6.3	Microbiological tests shall be undertaken on both beer and yeast to ensure that beer is free from bacterial infection and yeast has sufficient viability. Apparent Total N-nitroso Compounds (ATNC) analysis shall be used as an overall measure of plant hygiene.	 As above (6.1, 6.2). With all these analyses it is important to promptly investigate what has happened if unexpected results are obtained and then to resample to check if any Corrective Actions implemented have been effective. The industry standard for Apparent Total N-nitroso Compounds (ATNC) is 20 parts per billion (ppb) and for N-Nitrosodimethylamine (NDMA) 0.5 parts per billion (ppb) in beer (5 ppb in malt). 	A spreadsheet is an easy way for recording both the schedule and the results.	
6.4	Where beer is packed at another site, precautions must be in place to ensure quality is retained.	 Agree a specification and check against it at despatch from the brewery and arrival at the packaging site. Ensure the packager checks dissolved oxygen (dO₂) on arrival and before packaging. Retain samples at the brewery. 	Records shall be kept and retained.	

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