CHECKLIST FOR BIOFERTILISER CERTIFICATION SCHEME

All plants and processes that produce digestates from waste must have and operate in compliance with the relevant environmental authorisation. Digestates from AD plants which have not yet completed the certification process will be regarded as waste until full certification is achieved. All plants must be compliant with this checklist which is drawn from the PAS110 (2014), Anaerobic Digestate Quality Protocol (2014), BCS Scheme Rules Version 6, the 'BCS in Scotland' (SEPA's Regulatory Position Statement for Digestate – 'Regulation of Outputs from AD Processes' 2017)' document, and the BCS Position on Technical Requirements (2019).

A. Site Details

Company Name		BCS No.	
Site Address			
Contact Name		Contact number	
Anaerobic digestion process type and size			
Auditor		Audit Date	
Individuals responsible for:			
QMS			
HACCP			
Production			
Dispatch			

B. Summary of information about the site and current processes (continue on pages at end of this questionnaire if more space is required)

Give a brief history / description of the AD company and indicate whether it is part of a Group or is an independent business.	
Give details of the location of the site (e.g., isolated, rural) and security (e.g., fenced).	

Give a brief description of the AD processes to be certified. Attach process flow chart/s if available.	
Scope of AD processes / products to be certified? If not please explain and give details.	

C. Information on products currently marketed, sub-contractors, approvals (continue on pages at end of this questionnaire if more space is required)

If digestate is currently marketed, please give details (type, total quantity, customers, purpose, value).	
Is there a copy of the PAS 110, AD Quality Protocol and 'BCS in Scotland' document on site and is it available to relevant staff?	
Are any processes sub-contracted to another company?	
If so, please give the contact name, company name, full address and tel. no. for all relevant sub-contractors.	
What relevant licences, accreditations, approvals do the company and any sub-contractor hold (e.g., waste management licence or exemption, animal by products licence)?	

D. Details of Inputs used (continue on pages at end of this questionnaire if more space is required)

Supplier Name:	Amount:	Product suitable for:

Ref:	Requirement:	Compliance:	Evidence
Scheme Rules 4.2 (Scope of certification):			
4.2.1	The digestates and anaerobic digestion process is kept separate from any wastes kept and any other processes carried out at the same site.		
4.2.2	If only some digested materials are certified then there must be clear division of the storage and handling of the certified and non-certified materials on site, so as not to compromise the quality of the digested materials for which certification under the Scheme is sought or held.		
4.2.3	Ensure that all communications, documents records, and marketing materials are clear as to which digested materials have achieved certification.		
4.2.8 BCS Position 17	Every batch of digestate (or portion of production) produced must comply with PAS 110, the ADQP (if applicable), SEPA's Position (if applicable) and the Scheme Rules. Non-conforming batches are only allowed under exceptional circumstances. Clear, written contingency plan for non-conforming batches required.		
4.2.10	If more than one digestion process on a single site, notify to the CB the digestion process(es) that is/are operated according to the Scheme requirements, and not only keep each certified process separate from each other but also separate from any non-certified process or activity at the same site.		

4.2.10	If more than one digestion process on a single site, all digestate derived from processes certified under the Scheme shall be kept separate from any other digestate, material, waste or any other substance stored and/or treated at the same site.		
Scheme Rules 6.1 and 6.2 (Application procedures and pre-requisites for application):			
6.1.1a	The operator holds a valid planning consent/permission, if required by the relevant planning authority.		
6.1.1a	The operator holds a relevant valid authorisation to operate the anaerobic digestion activity (e.g. waste management licence, environmental permit or exemption) issued by the relevant regulator, or an exemption registered with the relevant regulator.		
6.1.1b	If animal by-products are treated, the operator has obtained or is in the process of obtaining approval is in the process of obtaining approval by the Animal & Plant Health Agency to treat animal by-products.		
PAS 110 section 4 Quality Management System (QMS).			
4.1 General:			
4.1.1	A QMS specific to a defined digestion process and resulting digested material output types must be established and maintained.		
4.1.2	Digestates placed on the market shall be one or more of whole digestate, separated liquor or separated fibre. Any of these digestate output types placed on the market as conforming to PAS 110 shall conform to the requirements of this PAS.		

BCS Scotland 4	Scotland: no blending with any other materials such as digestates, composts, materials, products or additives is permitted.		
4.1.3	Senior management shall:		
4.1.3a	ensure sufficient resources (people, infrastructure, equipment, work environment) for establishment, implementation, maintenance and improvement of the QMS;		
4.1.3b	ensure responsibilities and authorities are defined, utilising at least a staff organogram and are communicated within the organisation;		
4.1.3c	establish quality policy for digested material produced under this QMS;		
4.1.3d	Communicate to the organisation that digested material produced under the QMS shall be fit for purpose;		
4.1.3e	establish appropriate communication processes within organisation and ensure communication takes place regarding effectiveness of QMS; and		
4.1.3f	conduct management reviews.		

Ref:	Requirement:	Compliance:	Evidence
4.1.4	Senior management shall appoint a person with responsibility and authority to:		
4.1.4a	ensure QMS processes are established, implemented and maintained;		
4.1.4b	report to senior management on performance of QMS and any need for improvement; and		
4.1.4c	ensure promotion of awareness of customers requirements throughout the organisation.		
4.2 Quality Policy:			
4.2.1	For each digested material type for which PAS 110 conformance is claimed, or is intended to be claimed, the producer shall:		
4.2.1a	check whether the digestate users have any additional requirements in addition to minimum quality requirement set out in PAS 110; and		
4.2.1b	Ensure the digestate is fit for purpose, including any extra quality requirements specified by user.		
4.2.2	The producer's quality policy shall include:		
4.2.2a	clear identification of the location of the digestion site, the type(s) of processes employed and digested material types produced;		
4.2.2b	for each digested material type for which PAS 110 conformance is claimed or intended to be claimed, the producer's commitment to achieving the corresponding minimum quality specified in 11.2 and 12.2; and		
4.2.2c	for each digested material type for which PAS 110 conformance is claimed or intended to be claimed, the producer's commitment to fulfilling customer's requirement regarding its fitness for purpose.		

Ref:	Requirement:	Compliance:	Evidence
4.3 Communication, awareness, training and competence:			
4.3.1	Quality policy and relevant parts of QMS must be communicated to all personnel whose activities affect digested material quality. Personnel made aware of the relevance and importance of their activities and how these contribute to the achievements of the commitments in the quality policy.		
4.3.2	Necessary competence for personnel performing work affecting digestate quality must be determined by senior management/QMS manager.		
4.3.3	Training, instruction and supervision for personnel, whose duties affect digestate quality, to ensure competency. QMS and HACCP training provided by formal training provider for competent person(s) with overall responsibility for QMS, who also is/are part of HACCP team.		
4.3.4	Training record kept for each person, including competent person(s) with overall responsibility for QMS shall include:		
4.3.4a	training topic;		
4.3.4b	training date or period;		
4.3.4c	name and role of trainee;		
4.3.4d	person and organisation delivering the training; and		
4.3.4e	any certificate or qualification achieved.		
4.4 Documents and document control:			
4.4.1	Documents appropriate to QMS must be established, used and subject to document control.		
4.4.2	Each internal QMS document in use must be current version approved by person with responsibility for document control.		

	Each such document must be legible, available at relevant place(s) of use and include a:		
4.4.2a	title;		
4.4.2b	version number;		
4.4.2c	date of issue; and		
4.4.2d	name of person who issued it.		
4.4.3	Records generated by weighbridge system are exempt from 4.4.2 provided each weighbridge system record is assigned a unique record number.		
4.4.4	Any document of external origin in use within the QMS must be identified and its distribution controlled.		
4.4.5	Any obsolete document version must be removed from all places of use and where appropriate replaced with current revised and approved version. Any obsolete documents retained for any purpose must be identified as obsolete.		
4.4.6	Records specified within PAS 110 that demonstrate effective control of input materials, production and storage of digested materials must be maintained.		
4.4.7	The records are:		
4.4.7a	readily identifiable;		
4.4.7b	legible;		
4.4.7c	genuine;		
4.4.7d	collated and retrievable; and		
4.4.7e	stored in good condition for at least two years.		
4.5 Incidents and accidents:			
4.5	All accidents and incidents that occur on site, known or suspected cause(s) and actions taken must be recorded. Need for preventative		

	action considered, and action taken must be recorded.		
4.6 Complaints and concerns:			
4.6.1	Necessary action must be decided and implemented in response to complaint/concern about quality or usability of digested material output types.		
4.6.2	The complaint record must include:		
4.6.2a	name and contact detail of complainant/person expressing concern;		
4.6.2b	specific subject of complaint/concern;		
4.6.2c	date and time received and to whom it was communicated;		
4.6.2d	nature and date(s) of any actions taken/checks carried out and by whom;		
4.6.2e	nature and date(s) of any response to complainant/person expressing concern; and		
4.6.2f	name of person who communicated response.		
Scheme Rules 14.1 (Complaints):			
14.1.2	If receiving a product complaint about a digestate product, investigate that complaint, and if necessary, take appropriate action. Record all complaints received and the action taken to investigate it and any remedial action taken.		
14.1.3	Notify the CB on receipt of any product complaint, and once the investigation has been carried out.		
14.1.3	On receipt of the complaint, the Operator is under a duty to take steps to identify, locate, preserve, and recover evidence. If the batch of digestate under investigation is dispatched to a Digestate		

	Customer and subsequently returned to the site, this must be quarantined and not re-processed.		
4.7 Internal audit of the QMS			
4.7.1	Internal audit must be conducted and recorded at planned intervals, at least annually, to determine conformance of QMS for production of digestate that are fit for purpose and that QMS is effectively implemented and maintained.		
4.7.2	Planned audit programme, including status and importance of processes and areas to be audited, and results of previous audits. Audit criteria, scope, frequency and methods must be defined. The selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit process. Internal auditors must not audit their own work.		
4.7.3	Internal auditing must cover QMS procedures (and processes) including evaluation of digestate production process, relevant operating procedures and digested material quality. Also procedures relating to QMS responsibilities, human resources, training, infrastructure, customer-related processes, data handling, communications and procedures for improvement of the QMS.		
4.7.4	Procedure defining responsibilities and requirements for planning and conducting audits, establishing records and reporting results must be established and documented.		
4.7.5	Necessary corrective action must be taken by the management responsible for the area being audited without undue delay to eliminate detected nonconformities and their causes. Follow up		

	activities must include verification and recording of actions taken.		
4.8 Management review of the QMS			
4.8.1	Review of effectiveness of QMS and HACCP plan(s) by senior management.		
4.8.2	Formal recorded review must be undertaken at least once per year, or sooner if significant change before scheduled date.		
4.8.3	Inputs to each review include:		
4.8.3a	results of internal and external audits;		
4.8.3b	AD process performance;		
4.8.3c	quality of digestate - conformance to quality policy and fitness for purpose;		
4.8.3d	status of preventative and corrective action;		
4.8.3e	follow-up actions from previous management reviews;		
4.8.3f	continuing suitability of QMS - HACCP plan, CCP's, CL's and operating procedures – in relation to changing conditions and information;		
4.8.3g	any complaints and concerns and their outcomes; and		
4.8.3h	recommendations for improvements.		
4.8.4	Output from management review include any decisions and actions related to:		
4.8.4a	improvement of QMS effectiveness including its procedures;		
4.8.4b	improvement of digested material quality as per customer/user requirements; and		
4.8.4c	resource needs.		

4.8.5 BCS Position 19	Production process must be re-validated where significant, non-temporary changes in input materials, production process management or required quality of digestate occur. Significance and temporary/non-temporary nature of any change must be reviewed and recorded including justification for each decision. Notify the CB if any changes are made to the process including the QMS, HACCP, personnel, process, feedstock or equipment.		
4.8.6	Relevant digestate output types must be sampled and tested as appropriate for determining the effects of any significant, temporary changes on digestate(s).		

Ref:	Requirement:	Compliance:	Evidence
PAS 110 section 5 Hazard Analysis and Critical Control Point (HACCP) system			
5.1	HACCP study must be carried out, in accordance with the seven recognized principles, to all stages of the digestate production process, from input material receipt to digestate dispatch.		
5.2	Assessment must be carried out for all hazards associated with intended uses of the digestate output type(s) for which PAS 110 conformance is claimed, or intended to be claimed. Hazards to include:		
5.2a	pathogens and toxins that adversely affect human and animal health;		
5.2b	odours offensive to people living or working in close proximity to the location of use;		
5.2c	stones and any man-made particles that may damage equipment for handling, mixing or applying digestate, or blended materials that contain it; and		
5.2d	sharps that may adversely affect human and animal health.		
5.3	CCP's for each hazard must be identified and CL's of the control measure(s) at each CCP established.		
5.4	All whole digestate shall undergo the CCP(s) for each hazard applicable to whole digestate. Operating conditions must be monitored for any CCP's for whole digestate to ensure they are maintained within the CL's.		

5.5	Operating conditions must be monitored for any CCP's for separated fibre and separated liquor, for which PAS 110 conformance claimed, to ensure they are maintained within the CLs.		
5.6	Procedures must be established for verification that the HACCP plan, CCP's and CL's are under control and the HACCP system is working effectively. HACCP plan and related procedures documented and reviewed as part of QMS review, as in 4.8.		
PAS 110 section 6 Input Materials			
6.1	Input materials must be source segregated biowaste and/or biodegradable materials. Reasonable care shall be taken to avoid contaminated wastes, products or materials from becoming included with input materials. Packaged former foodstuffs, catering waste, other types of ABP and non ABP food waste only acceptable if non-biodegradable material removed prior to loading the digester. Note to auditor: *Evidence of reasonable endeavours to remove packaging may include* *i. Machinery in place that is capable of removing non-biodegradable packaging* *ii. A staff member competent in operating the machinery* *iii. Machinery is working effectively and that a staff member is responsible for checking it regularly*		

BCS Position 13	*iv. performance criteria for the equipment are set and monitored frequently performance criteria for screens are set and monitored frequently* *vi. Regular servicing of the machinery in line with the servicing schedule* Depackaging equipment must not be designed to reduce particles below 2mm.		
6.2	Written supply agreement in place for each input material supplier unless source is from within digestate producer's own premises or holding.		
6.3	Supply agreement can be bypassed if input materials are only from the digestate producer's/co-operative's premises/holdings and products of digestion are used entirely within the same digestate producer's/co-operative's premises/holdings. This exception is only allowed if input material from any source outside the producer's premises or holding is manure, unprocessed crops, processed crops, crop residues, glycerol and/or used animal bedding that has arisen within the premises or holdings of the cooperative of which the producer is part.		

6.4	Animal bedding acceptable if it comes from a different holding provided it has not come into contact with livestock other than those on the digestate producer's holding. Such material shall not contain any non-biodegradable materials or residues of any toxic substances.		
6.2	Supply agreement must include:		
6.2a	type and specific source location(s) of material;		
6.2b	brief description of source type and associated process from which it arose;		
6.2c	description of its physical form;		
6.2d	criteria for acceptance – qualitative or/and quantitative;		
6.2e	any additional arrangements to remove or reduce physical contaminants or any other suitable content prior to shredding or digestion;		
6.2f	criteria to trigger input material rejection and procedure to deal with rejected material; Note to auditor: *Check that the individual responsible for checking has been trained and can identify a load that must be rejected.*		

Ref:	Requirement:	Compliance:	Evidence
6.2g	requirement for duty of care on the supplier relating to quality control;		
6.2h	requirement that any significant change in input material must be notified producer before delivery; and		
6.2i	declaration that each input material is fit for purpose.		
QP 2.2.2i	Non-waste biodegradable materials are permitted as an input material		
QP 2.2.2ii	Waste materials must be source separated and listed in Appendix B and not further restricted by the environmental permit.		
BCS Scotland 6	Scotland: steps must be taken to exclude potentially polluting or toxic materials or products from the feedstock including invasive plant species such as Giant Hogweed, Japanese Knotweed, Himalayan Balsam or toxic species such as Ragwort or Yew. No wastes from the leather industry, except EWC 04 01 01, 04 01 05, & 04 01 07,or sludge from sewage treatment processes can be used.		
QP 2.2.2iii	Biogas plants taking APB material listed in appendix B must be carried out in accordance with animal by-products controls.		

Ref:	Requirement:	Compliance:	Evidence
QP 3.1.3	Records as detailed in Appendix F must be kept for a minimum of 4 years.		
6.5	Producer must ensure that suppliers understand the importance and requirements of the supply agreement.		
6.6, 6.7, 6.9 QP App F	Records for input or rejected material type:		
6.6a QP App F 6.9a	input material type & EWC code;		
6.6b QP App F 6.9b	source, place of origin (where known) & supplier;		
6.6c QP App F 6.9c	amount;		
6.6d QP App F 6.9d	date delivered/rejected;		
6.6e QP App F 6.9e	acceptance or whether load (or part load) rejected listing reasons for rejection;		
6.6f QP App F 6.9f 6.7	delivery location on each input load, unless only one delivery location and it is identified in operating procedures or in QMS documentation; and		
QP App F	Carrier of input material.		

Ref:	Requirement:	Compliance:	Evidence
6.8	Each delivery must be visually inspected at a location where there is no risk of cross-contamination except if it can't due to unacceptable risk to human health after practical measures have been applied.		
6.10	No requirement to record input material type, source and reason for rejection for periodic container loads of physical contaminants removed from numerous accepted input material deliveries that are sent to a disposal facility.		
PAS 110 section 7 Process Management, separation and storage			
7.1.1	Process steps to produce whole digestate, separated liquor and fibre fractions must be kept separate from any other materials, processes and stores on the same site.		
7.1.2	The site, digestate production system, storage and dispatch of treated and rejected materials must be designed and managed so there is a one way flow through the system removing the risk of risk of cross contamination of any of the following: rejected material, partially treated material, fully treated whole digestate, separated liquor or fibre. (Especially important where heat exchanger systems are used.) *Digested material can be re-circulated through the process.*		
7.1.3	Any non compliant digestate must not contaminate any compliant material or any other material on site.		

7.1.4	Each treatment/storage vessel/area must be clearly labelled and correspond with the production process and flow diagram.		
7.1.5	Each batch or portion of production must have unique code		
7.1.6	Digestate must be fully processed and have completed any minimum maturation and storage time before dispatch.		
7.2 Pasteurization			
7.2.1	With the exception of AD processes approved by the competent authority under EU Animal by-product Regs which treat all materials to the approved standard, all processes shall include either: a) pasteurisation step of a minimum 70ºC for an hour or b) equivalent treatment validated for efficiently reducing plant pathogen indicator species.		
7.2.2 BCS Position 18	Input materials derived from a prior process that includes the minimum pasteurisation step above are exempt from 7.2.1 Satisfactory evidence (such as HACCP and input supply agreements) must be provided to the auditor.		
7.2.3 BCS Position	Digested materials made only from manure, unprocessed or processed crops, crop residues glycerol, animal bedding arising within the producer's or co-operative's premises, and used entirely within the same premises or holding are exempt from 7.2.1. Must comply with the requirements of this position.		

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7.2.4	Animal bedding acceptable if from a different premise/holding provided it has not come into contact with livestock Other than those within the premise/holding. Such material must not contain any non bio-degradable materials or any residues of toxic substances that represent an unacceptable risk to humans, animals and environment.		
7.2.5 BCS Position 16	Exception also for material listed in 7.2.3 digested with pasteurised material not originating from the operator's holding or co-operative on condition the digestate is used within the holding or co-operative's premises and is consistent with the holding or co-op's Animal Health Plan. Must comply with the requirements of this position.		

Ref:	Requirement:	Compliance:	Evidence
7.3 Documents on process management, separation and storage			
7.3.1	A written operating procedure must cover the following as a minimum:		
7.3.1a	written description and annotated flow diagram of the production system;		
7.3.1m	process management evaluation; and identification of process failures		
7.3.1 b, c	input material storage and reception area;		
7.3.1d	input material preparation (pasteurisation, cleaning, maceration);		
7.3.1e	the steps for producing digested material;		
7.3.1 f, n	the steps that are CCPs and their CLs with corrective action to be followed in the event of a deviation from CLs. Also corrective action for any other quality failure;		
7.3.1g	monitoring points and parameters monitored;		
7.3.1h	any applicable step for separating whole digestate;		
7.3.1i	storage for digestate types, storage conditions and min timescales;		
7.3.1j	any maturation step and storage for separated fibre;		
7.3.1k	any re-circulation of whole digestate or separated liquor;		
7.3.1l	digested material sampling points;		

Ref:	Requirement:	Compliance:	Evidence
7.3.1 o	dispatch of digestates from digestion facility;		
7.3.1p	process inspection and maintenance from input to dispatch;		
7.3.1 q, r	procedures to be followed in the event of equipment failure. Accidents, incidents and a description of procedure for establishing the appropriate corrective action including unforeseen circumstances;		
7.3.1s	vermin control; and		
7.3.1t	a statement of the known or estimated throughput in the last 12 months.		
7.3.2	The producer shall record all actions taken relating to the operation of the AD process.		
PAS 110 section 8 Process equipment			
8.1	Producer's document system must identify equipment required to maintain and monitor the process (could be included in the operating procedures documents).		
8.2	Producer's document system must state how often machinery is to be checked, how often and what contingency arrangements are in place. Results of checks must be recorded.		
8.3	All equipment used to manage and monitor the process must be maintained in good working order.		
PAS 110 section 9 Process monitoring – general – monitoring is a planned sequence of measurements or observations to confirm good practice			
9.1.1	The producers document shall state:		
9.1.1a	monitoring points, including which are for CL parameters;		

Ref:	Standard:	Compliance:	Evidence
9.1.1b	parameters monitored and calculated e.g. temp. OLR, HRT;		
9.1.1c	monitoring methods;		
9.1.1d	monitoring and calculated parameter frequencies;		
9.1.1e	acceptable range of results for each monitored parameter; and		
9.1.1f	information that must be recorded.		
9.1.2	Producer must monitor process steps and keep monitoring records that include results, dates and identification of relevant monitoring points.		
PAS 110 section 10 Sampling of Digested Material (only output types intended to be sold as BCS compliant)			
10.1.1	Each type of digestate (whole, separated liquor and separated fibre) requires sampling if they are to be dispatched as PAS 110 conforming.		
10.1.2 10.2-10.4	For all determinants, except stability, sampling shall be carried out after full treatment (including any separation) and when the digestate is ready for use. Each final sample shall be representative of the batch or portion of production. Process for producing a representative sample and timescale to be noted		
10.1.3 BCS Position 14	Sampling for the measurement of stability shall be carried out at a point between the end of the digestion process and dispatch from the site. Whole digestate can be sampled prior to separation and if this is done the other fractions need not be sampled and tested.		

10.5	Samples taken and test results obtained for ABP Regs only count towards compliance to PAS 110 if taken as required in clause 10, and is tested as required in 11.2 before validation, or as required in 12.2 after validation. The sample shall be taken at a time that corresponds with 10.2's, 10.3's or 10.4's respective criteria for digested materials		
10.6	The minimum time between taking each sample from a portion of the production shall be defined in the producer's QMS. Each sample shall represent a different portion of production.		

Ref:	Requirement:	Compliance:	Evidence
10.7	The laboratory shall be informed of the following and a copy kept for each sample:		
10.7a	sample date;		
10.7b	digestate type;		
10.7c	code for or reference to the sampled portion of production;		
10.7d	digestate facility name; and		
10.7e	name of person who carried out the sampling.		
10.8	The above applies to third parties taking samples.		
10.9 BCS Position 15	Samples tested must be tested in laboratories that have no conflict of interest with the producer. Samples shall be sent to lab within a day after sampling, stored in a dark cool place but not frozen. Samples should arrive at the lab within 72hrs.		
PAS 110 section 11 Validation			
11.1.1	The validation timescales must be sufficient for checks that any output types, for which conformance is claimed, meet the requirements.		
11.1.2	To validate the efficacy of the HACCP plan and to verify that the process is under control, the producer must:		
11.1.2a	ensure the quality and proportions of input materials are within the plant design and operation parameters;		
11.1.2b	operate all CCPs within CLs;		
11.1.2c	check monitoring results, particularly at CCPs;		
11.1.2d	carry out corrective actions if deviations are beyond CLs;		

11.1.2e	identify cause when CCP operates outside CL or a quality failure occurs, and record the cause and corrective action taken;		
11.1.2f	send samples for validation as specified in 11.2;		
11.1.2g	check test results are within minimum requirements including additional requirements listed in the quality policy 4.4.2c;		
11.1.2h	change HACCP plan if the process is under control but not producing sufficient quality digestate; and		
11.1.2i	repeat a-g if h is carried out.		
11.1.3	Before validation, conformance claims only made to sampled portions that at least meet minimum requirements and additional commitments.		
11.2 Minimum testing of the digested material and quality requirements for validation			
11.2.1 11.2.4	The process and any output types for which conformance is claimed shall be validated and the validation shall be recorded.		
11.2.2	For each parameter in PAS 110 Table 1 (Annex 3) the '3 most recent sample' test results must not exceed the upper limits.		
BCS Scotland 2	Scotland: the test results must also not exceed the upper limits of SEPA's additional quality standards in Table 1		
11.2.3	Exception to '3 most recent' requirement for ABP derived digestate if validated by competent authority/Animal Health vet for human and animal pathogens, provided samples are taken as in clause 10.		

11.2.4	For digested material from inputs arising on the producer's/co-operative's premises or holding (made only from manure, unprocessed crops, processed crops, crop residues, glycerol and/or used animal bedding), the parameters set out in PAS 110 Table 2 must not be exceeded.		
11.2.5	Animal bedding may originate from a different premise but must not have come into contact with livestock other than those within the holding. The material must not contain non-biodegradable or toxic substances.		
11.2.6	Digested materials from inputs originating within the producer's/co-operative's premises and used within those premises, are exempt from human and animal indicator species tests, unless there is a risk they contain human or animal pathogens.		
PAS 110 section 12 After validation			
12.1.1	The producer must continue to monitor and evaluate the process efficacy by:		
12.1.1a	maintaining operations within CLs for each CCP;		
12.1.1b	monitor and record conditions and management as specified in clause 9;		
12.1.1c	test samples as specified in clause 12.2;		
12.1.1d	checking the test results and additional specifications comply with 12.2 and any commitment in the quality policy;		
12.1.1e	taking corrective actions if CCPs are outside CLs, sample fails test or any other occurrence that may cause quality failure; and		

12.1.1f	identify cause when CCP outside CLs or quality failure occurs. Record the cause and actions taken.		
12.1.2	If quality has been adversely affected a sample of the portion of production shall be taken and tested for determining the efficacy of the corrective action.		
12.2 Minimum testing of the digested material and quality requirements after validation			
12.2.1	Minimum frequencies for testing representative samples of digestate after validation shall be applied as presented in table 4.		
12.2.2	For each parameter in PAS 110 Table 3 the '3 most recent' sample test results must not exceed the upper limits.		
BCS Scotland 2	Scotland: the test results must also not exceed the upper limits of SEPA's additional quality standards in Table 1		
12.2.3	Exception to '3 most recent' requirement for ABP derived digestate if validated by competent authority/Animal Health vet for human and animal pathogens, provided samples are taken as in clause 10.		
12.2.4	For digested material from inputs arising on the producer's/co-operative's premises or holding, listed in 12.2.4, the parameters set out in PAS 110 Table 5 must not be exceeded.		
12.2.5	Animal bedding may originate from a different premise but must not have come into contact with livestock other than those within the holding. The material must not contain non-biodegradable or toxic substances.		

PAS 110 section 13 Actions in the event of test failure			
13.1	If a tested sample fails any limits specified in 11.2 the producer must either dispatch as non-conforming material or take action and gain evidence of conformance to PAS 110 before dispatching.		
13.2	Any testing of failed portions of production must correspond with failure parameters, see 10, 13.4 and 13.5.		
13.3	If a sample (whole digestate or liquor) from a storage tank fails a test and the producer takes corrective action, an additional portion may be added to the tank and mixed, then sampled. The test result must then be taken into account for compliance.		
13.4	If a sample of separated fibre fails a test, the portion must be resampled before any other portion of fibre is added to it. Its stability and pathogen test results must not be taken into account for compliance.		
13.5	After validation if any sample fails any limits in 12.2, but the batch has been dispatched prior to receipt of the results, the producer must inform any customer and the regulator and/or competent authority of the nature of the failure.		
13.6 13.7	Before and after validation, any test result pass described in 13.4 or 13.5 will be regarded as the ‘first’ of the ‘3 most recent’ sample test results. The additional production must be sampled and tested promptly.		

PAS 110 section 14 Dispatch, labelling, marking and use of digestate.			
14.1.1	The producer must record the:		
	amount ;		
	type;		
	date; and		
	location of where any digestate is used on their own premises or holding. Where digestate has been exempted from pasteurisation requirements related to production within a cooperative, then those receiving such digestate shall be notified of the omission in writing, and agree in writing that the digestate is of sufficient quality for their purpose.		
QP 2.2.4 4.1.1	Quality digestate must be destined for: a. Agriculture, forestry and soil/field horticulture and/or b. Land restoration (separated fibre only).		
BCS Scotland 8	Scotland: the digestate must be used without requiring any further processing or recovery operations.		
QP 4.1.2 4.2.1 4.2.2	Good practice must be followed so quality digestate will not pose an adverse risk to human health or the environment in the quantities and frequencies at which they are likely to be applied and does not compromise the future sustainability of the soil to which they are applied. Must be able to demonstrate that full account has been taken of any environmental impact resulting from its use		

BCS Scotland 9	Scotland: There must be certainty of use for dispatched material. PAS110 certified digestate in intermediate storage will be regarded as a waste.		
14.1.2 QP 3.2.1, QP 3.2.3 and QP App G	The following shall be supplied to any customer of digestate conforming to PAS 110:		
14.1.2a	producer name and contact details;		
14.1.2b	digestate process address or code;		
14.1.2c	statement of whether whole digestate, separated liquor or separated fibre is supplied;		
14.1.2d	if separated, statement of the separation equipment and size of apertures;		
14.1.2e	typical characteristics or lab results;		
14.1.2f 14.1.2g	if from ABP material, a statement saying that it contains or consists of treated ABP material and a warning to comply with ABP regs; and a statement "Conforms to PAS110:2014".		

Ref:	Requirement:	Compliance:	Evidence
QP 3.2.3 & QP App G BCS Position 20	Guidelines and conditions for use: - for use solely in designated market sector - must comply with ABP regulation where appropriate - must be used, stored and handled in accordance with good practice guidelines - must not be blended with any waste material If supplied to a contractor, clear terms and conditions for product usage and storage shall be supplied with a declaration to be signed by the contractor.		
QP 3.2.2	Where digestate is intended for producers use, supply documents are not required		
14.1.3	Separated fibre supplied for amateur horticulture/domestic use is exempt from 14.1.2 e.		
14.1.4 QP App F & G	The producer shall make and keep a copy of the following for each consignment:		
14.1.4a	customer name and contact details or code and delivery address;		
14.1.4b	quantity by weight or volume;		
14.1.4c	date of dispatch; and		
14.1.5	Information supplied to each customer shall include the typical characteristics or relevant lab test results, which must include:		
14.1.5a	PTE concentrations;		
14.1.5b	pH;		
14.1.5c	total nitrogen;		
14.1.5d	total phosphorous;		
14.1.5e	total potassium;		

14.1.5f	ammoniacal N (NH_4- N);		
14.1.5g	dry matter (total solids); and		
14.1.5h	loss on ignition (volatile solids).		
Scheme Rules 9.1 (Use of the conformity marks):			
9.1.1	The conformity mark shall only be used in clear association with the certified anaerobic digestion process and digestate(s).		
9.1.2	The conformity mark may only be used in conjunction with the certified digestates and only in association with the Operator's name shown on the certificate.		
9.1.3	Where the conformity mark is displayed on a digestate product, it must also be accompanied by at least the BCS number. The mark may only be used in the form and colour as it is supplied. Any changes to the marks must request permission and obtain approval from REAL.		
9.1.4	The above consent, in so far as it applies to use of the conformity mark, is limited to using the entire designations "PAS 110 PRODUCT" or "PAS 110 PRODUCT SCOTLAND" (whichever is applicable to the scope of certification) and to using the appropriate conformity mark in an identical form to that supplied by REAL. The consent is specific to the Operator's certified digestate output(s) and anaerobic digestion process and shall not be transferred or licensed to any other business		
9.1.5	Invoices, delivery dockets or other documents relating to certified digestates may state that the product is certified under the		

	Scheme and display the Scheme conformity marks, if it also states the BCS number and name and the address of the AD facility, along with the name of the CB. These documents must make it clear which products are certified and which are not. Must not use (or authorise or license others to use) the logo in any way outside the scope of the above consent unless first obtaining REAL's written authorisation.		
Scheme Rules 8.2 and 13.1 (AD operators' information):			
8.2	Inform the certification bodies when any changes are made in relation to: a) mailing addresses; b) person or contact details of the person responsible for complying with the scheme; c) person or contact details of the person that is responsible for digestate sales or related contact details; and d) any other details relevant to this Scheme.		
13.1.1	The operator shall record waste recovery returns data and other data for reporting to the CB, which shall include: a) the tonnage of waste dispatched from site annually (e.g., as contaminants) b) the tonnage of certified digestate per output (e.g. tonnage of separated fibre and tonnage of separated liquor)		

	c) the markets that each certified digestate output is supplied to, and d) the number of product complaints received since the last inspection and the nature of each complaint (e.g., plastic contamination)		

Additional Comments: