

Wessex Water Bioresources Centres

Waste Pre-acceptance, Acceptance and Rejection Procedure

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1. Purpose

The purpose of this waste pre-acceptance, acceptance and rejection procedure, is to manage waste imports at Wessex Water Services Limited (WWSL) Bioresources Centres (BC) to ensure compliance and minimise environmental harm. It is broken down into three sections:

1. Waste pre-acceptance
2. Waste acceptance
3. Waste rejection

This procedure has been prepared in compliance with the Environmental Permitting Regulations 2016, the Best Available Techniques (BAT) Conclusions and BAT Reference Document for Waste Treatment (BREF).

In addition, our procedures take into consideration guidance produced by the Environment Agency on 'Biological waste treatment: appropriate measures for permitted facilities' (September 2022).

All waste received is produced and treated by the same operator – WWSL and the waste types are well known and controlled. Therefore, the applicability of pre-acceptance and acceptance procedures are low risk in terms of process safety, occupational safety and environmental impacts.

2. Related documents

This procedure should be read alongside the site-specific documents, which includes details on the scope of the procedure and operations of the site.

The management of residues, waste and tankering are covered in the following documents:

Site	Residues Management Plans	Waste Management Plans	Best Tankering Practice
Avonmouth	TRTWP540	OPSP343	TRTWG744
Berry Hill	TRTWP552	BIOP015	TRTWG730
Poole	TRTWP533	OPSP277	TRTWG768
Taunton	TRTWP555	BIOP019	TRTWG818
Trowbridge	TRTWP550	BIOP011	TRTWG801
Wimborne St Giles			TRTWG842

Tankered sludge:

- Sludge scheduling procedure [TRTWB003](#)
- Response to request for wastewater emergency tanker [ROCP114](#)
- [Procedure for taking sludge samples from a tanker](#)

Cake & Biosolids:

- Sludge Asset Cleardown procedure for handling different waste types [TRTWP567](#)
- Sludge Sampling Technique –Digested Cake [TRTWP517](#),
- Sludge Sampling Technique – Limed Cake [TRTWP518](#).

Other:

- WRC sludge waste pre-acceptance form [BIOF037](#)
- How to complete a Hazardous Waste Consignment Note [ENVWG003](#)
- Pest management plan [TRTWP560](#)

3. Scope/exclusions

This procedure covers waste pre-acceptance, acceptance and rejection for waste received for treatment via anaerobic digestion (AD) or liming at Wessex Water BCs:

- Avonmouth waste received under permit EPR/UP3797EA (AD)
- Avonmouth waste received under proposed permit EPR/LB3909CS (liming)
- Berry Hill waste received under permit MP3193FE/V002 / (AD)
- Poole waste received under permit EPR/KP3793FB/V005 (AD)
- Trowbridge waste received under permit EPR/BB3934AG/V002 (AD)

4. Waste accepted

Tankered sludges for anaerobic digestion

Imported sludges - Each BC will accept sewage sludges produced by the Urban Waste Water Treatment (UWWT) stream from WWSL facilities only. These non-hazardous waste water sludges originate from smaller origin water recycling centres (WRCs) across the region of WWS.

Indigenous sludges - Each BC also accepts primary and biological sewage sludge produced from the adjoining WRC.

We do not accept any commercial waste or waste that would result in co-digestion at the BC. Only sludges described in the table below are accepted into the permitted areas.

All movements of imported liquid sludge are under the management of the tanker desk. Imported waste must be delivered in an appropriate tanker that can discharge safely into the sludge import tank.

The principal types of tankered sludges processed at the BC are:

1. Primary sludge: primary settling tanks - high organic content >75%.
2. Chemical precipitation primary sludge: primary sludge from settling tanks chemically dosed with iron salts to aid phosphorus removal - usually 70% organic content.
3. Surplus activated sludge: excess sludges from activated sludge process - 75% organic content or higher.
4. Humus Sludge: sludge settled following trickling filters - 75% organic content or higher.
5. Sludge liquors: liquors from physical sludge treatment – usually less than 1% solids.

Imported sludges to the BC are typically in the range of 1% to 8% dry solids and most commonly between 3% to 6% dry solids.

Infrequently, a BC may be asked to accept raw sewage sludge (19 08 05) from UWWT streams from sites controlled by other water companies. The pre-acceptance criteria and analysis below will be followed.

Biosolids for liming

Dewatered raw untreated cake, digested cake and non-compliant limed cake – Lime treatment BCs accept combinations of cakes of both imported and indigenous origins. These are collectively referred to as cakes throughout this document.

If treated cakes (limed or digested) from a Bioresources Centre have failed compliance with the Critical Control Points (HACCP) plan, the biosolids will be considered non-compliant and will either be transferred to an alternative WWSL liming treatment facility or resampled at appropriate intervals until compliance with the conventionally treated standard, as described by the Biosolids Assurance Scheme (BAS) is achieved.

We do not accept any commercial waste or waste that would result in co-digestion at the BC. Only sludges described in the table below are accepted into the permitted areas.

Imported cakes transported for liming are moved in roll on-roll off skips and will be stockpiled in the un-limed cake bay prior to liming treatment. Unloading takes place by operational staff. To prevent cross-contamination between raw and digested biosolids, the un-limed cake bay is washed down with every waste type change as per the procedure in [TRTWP567](#).

Imported sewage sludge cake is typically in the region of 20-30% dry solids, and most commonly around 23-26% dry solids.

Table 1 provides a summary of the wastes accepted at the BC by waste stream, EWC code and origin.

Table 1: Accepted waste streams

Waste Streams	EWC Codes	Origin
Indigenous Sludge	19 08 05 Sludges from treatment of urban waste water	Indigenous sewage sludge arising from the WRC
Indigenous Raw Cake	19 02 06 Sludges from physico/chemical treatment other than those mentioned in 19 02 05 (sewage sludge only)	Indigenous dewatered sewage sludge
	19 12 12 Other wastes from mechanical treatment of wastes other than those mentioned in 19 12 11	
Indigenous Digested Cake	19 06 06 Digestate from anaerobic treatment of animal and vegetable waste	Indigenous dewatered sludge arising from anaerobic digestion
Imported Sludge	19 08 05 Sludges from treatment of urban waste water	Sewage sludge arising from other Wessex Water WRCs
	19 02 06 Sludges from physico/chemical treatment other than those mentioned in 19 02 05 (sewage sludge only)	
	19 12 12 wastes from mechanical treatment of wastes other than those mentioned in 19 12 11 (sewage sludge only)	
Imported raw, and non-compliant limed cake	19 02 06 Sludges from physico/chemical treatment other than those mentioned in 19 02 05 (sewage sludge only)	Dewatered sewage sludge arising from other Wessex Water WRCs
	19 12 12 Other wastes from mechanical treatment of wastes other than those mentioned in 19 12 11 (sewage sludge only)	

Imported Digested Biosolids	19 06 06 Digestate from anaerobic treatment of animal and vegetable waste	Dewatered sludge arising from anaerobic digestion from other Wessex Water BCs
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Each BC does not accept hazardous, 'mirror-entry' hazardous or bespoke waste streams. Any new or unusual requests are assessed using the below criteria and if these fail Section 2 requirements below, then the rejection procedure is used, and the load is not discharged. WWSL has control of the sludge stream from the point of production at the origin sites through to the acceptance and treatment at the BC.

Waste Pre-acceptance Procedure

5. Waste pre-acceptance procedure and BIOF037

5.1. Waste pre-acceptance overview

Waste accepted will be limited to raw sewage sludges, raw sludge cake, non-compliant limed sludge cake and digested biosolids arising from WWSL facilities only (indigenous and imported). Each incoming waste stream will be subject to pre-acceptance checks, and the following details will be recorded:

- Source of waste, including the location and WWSL site name
- Description of waste (e.g., sewage sludge arising from a WWSL WRC)
- The process that produced this waste
- Physical form and transport details (e.g., sewage sludge transported via tanker)
- Estimated volumes annually expected to be imported into the BC.
- How the waste will vary over time (e.g., seasonal variations, trade changes)
- EWC code of the waste
- Representative characterisation analysis as per the list in [BIOF037](#)

Pre-acceptance checks will also include consideration of any deviation from typical incoming WWSL WRC wastes including, but not limited to:

- Increased odour potential
- Oil Contamination – heavily contaminated waste will be classed as hazardous and not accepted by the facility.
- Visual check of the colour of the waste, to check it appears as it normally would.
- Visual check of waste for increased level of fly larvae, maggots or adult flies that potentially may cause a nuisance issue. This is a requirement of the Generic Pest Management Plan: [TRTWP560](#)
- Visual check for any other foreign bodies that should not be present (e.g., plastic, litter)
- Age of waste - older waste may have an increased septicity which can affect the anaerobic digestion process. Indigenous sludges are typically a lower sludge age than imported, ranging from a few hours old up to 10 days in normal operation. Imported sludges are usually anywhere from one day up to several months old. The sludge age is important as it can lower the sludge calorific value and affect digester health and the amount of biogas that is generated. It is worth noting that the smaller sites that are likely to have older sludge will have far smaller volumes of sludge overall and therefore the impact on the digesters will be lower. As well as providing information on the age of waste we carry out an additional check of pH of the waste to give an indicator of septicity. This is tested for at pre-acceptance and additional checks are carried out at the acceptance stage.

These factors will be considered to ensure the incoming waste can be treated effectively and ensures no additional environmental risks or nuisance.

All of this information is recorded in form [BIOF037](#).

5.2. Waste sampling and characterisation

Each BC currently accepts sludge from origin sites or WRCs across the Wessex Water region. The sludge is deemed to be consistent and therefore samples for waste characterisation will be carried out on a risk-based approach. This is explained further below.

Additional characterisation of wastes will be carried out for any new origin sites being imported into the BC.

In line with guidance in Appropriate Measures, Section 6.1.13: If the customer has a number of containers holding the same waste, the industry standard applying the square root of (N)+1 rule to sampling those containers can be applied.

Example – Poole

Poole has 13 origin sites, the square root (N)+1 = 3.74.

Sludge samples will be taken from 4 of the origin sites that import into Poole per year.

Table 2: Wessex Water Bioresources Centres

Site	No. of origin sites	Square root of (N)+1=	Samples required per annum
Poole	13	3.74	4
Trowbridge	63	8	8
Berry Hill	20	4.58	5
Taunton	29	5.47	5
Avonmouth	25	5.09	5

The process scientist will identify the new sites to be sampled in line with table 3 below and initiate the characterisation. For BCs with more origin sites a higher number of characterisation samples from each range will be taken each year.

A risk-based approach is undertaken to determine the pre-acceptance sampling sites, for example with a focus on sites that have higher trade effluent inputs in the incoming sewage or for sites producing large quantities of sludge by volume to be sent to the BC. These sites potentially carry greater risk in terms of impact on AD operations and therefore it is important to understand their waste characteristics.

Table 3: Trade effluent

WRC size P.E	Trade effluent in WRC catchment	No. of characterisation samples (per year)
Low (<10,000)	No	0-2
Medium (10,000 – 50,000)	Yes	1-3
High (>50,000)	Yes	2-4

- Nb. A low p.e. WRC with trade effluent will use the medium p.e. line.
Raw sewage sludge from other Water Companies will use the high p.e. line.

Sampling of tankered sludge is undertaken by appropriately trained tanker drivers or Scientists. Samples are tested at our internal UKAS accredited laboratory with some analysis also completed at a third-party laboratory (if required) with a documented management system accredited to ISO 17025. Samples taken will be representative and taken in accordance with our internal sampling procedure and as set out below. Sampling techniques may be adjusted to ensure representative samples are collected. For example, when:

- Seasonal variation may affect the composition of the incoming waste samples.

Tanker sludge will be sampled from the tankers prior to offloading into the import tank. Samples will be taken in accordance with the toolbox talk for tanker drivers on how to take samples: [TAKING SLUDGE SAMPLES FROM TANKER WHILE DISCHARGING AT RECEPTION SITE UPDATED](#)

Cakes will be sampled from the pre-lime sample point as detailed in each BC HACCP Sampling Procedure. Digested cakes will be sampled following the procedure in [TRTWP517](#), whilst limed cakes will be sampled following the procedure in [TRTWP518](#).

Sampling and measuring equipment should only be used for this purpose to avoid the risk of sample contamination.

All sludge samples are registered for the determinants listed in the [BIOF037](#) form.

Process scientists are responsible for providing notification to Sludge Logistics Team, Biosolids Team, and tanker drivers on an annual basis to carry out the sludge sampling for characterisation. They provide the following information:

- Sample label details (utilising the following test code for sludge: PRE_ACC_SLDG) and pot types.
- The number of samples and approximate dates to be collected.
- The sites selected.

Samples are transferred by internal courier to our internal UKAS accredited laboratory and the results are transferred via LIMS (Laboratory Information Management System) into the Scientific Systems software. The results are initially reviewed by the process scientist who will input the results into the [BIOF037](#) form for the relevant site. The scientist can involve the Compliance team in further assessment if required. All results are also held on the company online SharePoint.

This testing will also provide useful information that will enable WW to monitor the consistency and variability of waste from different origins.

Information on the characteristics of the waste will be obtained prior to acceptance of the waste at the BC. This information is to allow us to gain an understanding of whether the waste received may have an impact on the quality of the outputs.

The following table provides an assessment of the characteristics of the waste we will assess at pre-acceptance and what their potential impact might be on the digestion process if left unchecked. These are also considerations for the lime treatment process.

Table 4: Pre-acceptance criteria

Parameter	Acceptable Range	Impact on Process / Reason for Sampling
Physical Contaminants (e.g., rags)	Dependent on site and screening capacity.	<p>During pre-acceptance (and acceptance tests) the waste is visually checked for physical solid contaminants as these can lead to blockages and be detrimental to the BC treatment process. Physical contaminants include stones and rags.</p> <p>It should be noted that all tankered sludge will be input through a screening system that should prevent rags entering the AD process. In addition, visual checks will also look for the presence of pests (larvae, maggots, flies) and any other foreign bodies that should not be present (e.g., plastic, litter)</p>
pH	5-9	<p>During pre-acceptance tests for tankered sludge, samples are tested for pH. It is usually slightly acidic. The typical range we would expect to see is 6-8 for a digestion process, as it is a biological treatment.</p> <p>Methanogens are very sensitive to pH changes and prefer a neutral pH of 7 for their highest performance. Hydrolytic and acidogenic bacteria are more tolerant to a larger pH range. Maintaining an optimum pH for all microorganisms in the same digester is challenging, especially for substrates with varying compositions like sewage sludge</p>
Potentially Toxic Elements (PTEs) Heavy Metals		Copper, nickel, zinc, cadmium chromium and lead amongst other metals are monitored periodically as they can be inhibitory and toxic under certain conditions in the AD process, depending on their concentrations.
Ammonia and Total Nitrogen	As per AD Process Description Monitoring	Ammonia may inhibit methanogenesis during the AD process if it is in high concentrations
Colour		Visual checks for colour are carried out to ensure the colour is within the expected / usual range

Further to Table 4, the individual characteristics that will be assessed at our internal UKAS accredited laboratory are listed in the [BIOF037](#) form and include those in Table 5 below.

Table 5: Waste sampling determinands

Composition
% Dry Solids

% Volatile Solids
Volatile Fatty Acids
pH (Required range 5 to 9)
Ammonia
Total Nitrogen
Total Phosphate
Total Organic Carbon (TOC)
Acid Soluble Fluoride
Total Sulphur
Magnesium
Alkalinity
Potassium
Iron
Molybdenum
Arsenic
Chromium
Copper
Lead
Nickel
Selenium
Zinc
Cadmium
Mercury
Calcium

These parameters will provide information on the composition of the sludge and alert WWSL to any contamination or toxicity that may cause it to be unsuitable or inhibit biological activity. These parameters have been selected as the most relevant to sewage sludge because they have the greatest potential to impact on the digestion process and on the quality of the digestate.

As detailed above the [BIOF037](#) form incorporates extensive checks at the pre-acceptance stage, ensuring that thorough checks are made prior to wastes being accepted at the BC for treatment.

The waste pre-acceptance assessment is repeated if:

- The waste changes.
- The origin site process changes and gives rise to changes in the waste.
- The waste received does not conform to the pre-acceptance information.
- There are significant changes to trade effluent sources at the origin site.

5.3. Origin site sampling

WW's knowledge of incoming wastes to the BC for treatment is expanded by our internal sampling programme at the origin sites. For a fixed period of time monthly samples are taken at the origin sites and tested at our internal UKAS accredited laboratory for the following:

- %DS
- pH

- ammonia
- phosphorus
- nitrogen
- %VS
- metals
- iron
- aluminium

This fixed time frame of sampling allows us to develop a baseline picture of site performance and seasonal variations at the origin sites. Operationally, sludges will only be accepted from origin sites where the sludge is healthy as indicated by the above monitoring of the raw sludges at each WRC. WW's Scientists will review this sample data and if any concerns are raised an assessment will be undertaken to determine the appropriate course of action.

5.4. Pre-acceptance analysis

Sampling will take place on any new streams to be imported into the BC, and as above we will carry out pre assessment analysis on an annual basis at the required number of sites. These sites are chosen on a risk-based approach (as described in Section 2.1).

The frequencies are based on the size of the WRC and whether trade effluent is permitted in the WRC catchment. The maximum frequency will be used for all raw sewage sludge imports from other Water Companies.

The full list of determinands is listed in Table 4 above and the BIOF037 form.

It is important that an understanding of how the sludge will affect the digestion process and the end digestate at the BC is obtained.

5.5. Pre-acceptance completion

The pre-acceptance information is correlated, reviewed and accepted by the Operations Site Scientist using the [BIOF037](#) recording form. The tanker desk then records details of the sites on TranSend as per [TRTWB003](#) sludge scheduling procedure. Once this is completed sludge loads are managed using the acceptance procedure and TranSend.

Cakes are managed by the Biosolids team and acceptance into the BC is manually recorded on a cake tracker database.

5.6. Record keeping.

Records of the WRC Pre-acceptance [BIOF037](#) form are kept for 3 years and are held on the corporate SharePoint. Individual sample results are held on the Laboratory Scientific Systems database.

The information held in accordance with this procedure is reviewed annually.

Waste Acceptance Procedure

6. Waste acceptance procedure

6.1. Acceptance overview

Sludge loads will only be accepted once pre-acceptance criteria have been met and recorded using the form [BIOF037](#). Only pre-approved sludge loads managed on TranSend can be booked into site using [TRTWB003](#) sludge scheduling procedure.

Cake loads are managed by the Biosolids teams in conjunction with Operations.

Emergency tankers can be accepted into site and have to follow the procedure response to request for wastewater emergency tanker ([ROCP114](#)). The Tanker desk manage these requests and knowing the age, origin, the EWC code and description of the waste can record the movement on TranSend, including checks that it matches information obtained at the pre-acceptance stage.

If the tanker desk staff determine the requirement is for hazardous waste or oil etc, they will identify an external specialist tanker firm to remove the waste.

The AD facility at the BC treats only wastes arising from WW WRC sites. These are known sources and the waste will be consistent in its characteristics. Only on rare occasions will waste need to be rejected. In accordance with Section 6.8 of guidance produced by the Environment Agency on 'Biological waste treatment: Appropriate measures for permitted facilities' (September 2022), acceptance sampling requirements do not apply to sewage sludge and septic tank sludge. Instead, visual checks and periodic audits against pre-acceptance characteristics will be undertaken.

6.2. Acceptance checks

At origin site:

A visual inspection of feedstocks is carried out by the tanker or skip driver at the origin site. The sludge sampling will be done by the tanker driver at the tanker during the loading from the feed line, whereas the cake sampling will be done by operators at the pre-lime sampling point. This will check for any unusual malodours and visual appearance differences, to confirm the waste is consistent with agreed pre-acceptance parameters.

The driver does the assessment. They are trained and competent to undertake the visual and odour check.

Visual Assessment:

Rejection of waste if:

- Darker colour than usual / unusual colour
- Heavily contaminated with oil or rags (or other foreign bodies)
- Presence of fly larvae, maggots or adult flies detected.

Odour Assessment:

Rejection of waste if it:

- Has a different / unusual odour suggesting the waste is septic or has other contamination.

At the BC:

In line with guidance in Appropriate Measures, Section 6.1.13: If the customer has a number of containers holding the same waste, you can apply the industry standard applying the square root of (N)+1 rule to sampling those containers.

Example – Poole

As there are approximately **9 tankers a day imported into Poole BC**, applying the square root of $(N)+1 = 3.16$. Therefore, 3 tankers a day will have acceptance checks carried out once they arrive at Poole. These checks will be carried out under the supervision of a suitably qualified operational team member.

Table 6: Wessex Water Bioresources Centres

Site	No of tankers a day	Square root of $(N)+1=$	No of tankers a day requiring visual checks
Poole	9	3.16	3
Trowbridge	22	4.80	5
Berry Hill	15	4	4
Taunton	8	3	3
Avonmouth	23	4.90	5

NB. Please note – whilst the above rule can apply, we are currently carrying out Acceptance checks on every tanker load into the BC. This is subject to change in future in line with the above.

The checks include:

- Visual assessment
- Odour assessment
- pH test (this doesn't apply to cakes imported for lime treatment)

Visual Assessment:

Rejection of waste if:

- Darker colour than usual / unusual colour
- Heavily contaminated with oil or rags (or other foreign bodies)
- Presence of fly larvae, maggots or adult flies detected
- Cake stack ability is unsatisfactory

Odour Assessment:

Table 7 gives a rating and description of the odour assessment of the waste. It also provides actions for the operational team member to carry out.

Rejection of waste if it:

- Has a different / unusual odour suggesting the waste is septic or has other contamination.

Table 7

Number	Description	Can the waste be discharged?	Report to/approval required
0	Normal/as expected	Yes	No
1	Slightly stronger than normal	Yes	No
2	Strong/unexpected/ underlying not associated with the waste stream (e.g., oil / chemical / unusual odour	No – Approval required.	Treatment Centre Supervisor or Manager

pH Test

If the recorded pH falls outside the expected range of 5-9, the site process scientist will assess the waste and once all checks are completed will decide if the waste is to be rejected. Out of hours, or in the event a scientist is unavailable, the load will be rejected.

6.3. Waste reception

Sludge acceptance into the BC is via a key fob and logger system which all tanker drivers are trained in using. The Rotork valve will only open to allow discharge into the sludge import tank upon presentation of a valid tag for the tanker volume. The key fobs are pre-programmed by the Tanker desk. This prevents any unauthorised loads being discharged into the BC.

The logger records:

- The date and time of discharge,
- the origin site,
- which tanker was used,
- volume,
- waste type i.e., sewage sludge.
- tanker driver,
- %DS

All of the above information is transferred to TranSend the software used for tanker movement recording. The site-specific Best Tanker Practice documents can be linked to in Related Documents below. These provide additional information for tanker drivers.

Imported sludge is off loaded from the tanker into import sludge holding or reception tank(s). All loads being offloaded are controlled by the logger control system. The discharge pipe for the logger point has an actuated Rotork knife valve that opens when the key fob is inserted into the logger control system enabling the tanker to discharge to a holding or reception tank. All imported sludges are screened to remove rags and inorganic debris from the imported sludge and prevents this material entering the digestion treatment process.

All sludge tanks have level monitors and inhibits to prevent spillages from any over filling. The levels are also connected to telemetry to alarm and notify site operations if there is an issue.

Cakes acceptance into the BC are manually recorded on a cake tracker database. Tonnages moved are weighed using the lorry's weigh cell and weigh bridges where available.

6.4. Anaerobic digestion feedstock sampling

Representative samples will be collected of the thickened blended AD sludge feed. Samples will be analysed by our internal UKAS accredited laboratory. The recommended analytical suite may be amended following a review of the pre-acceptance information provided or based on previous known characteristics of the waste stream.

Imported sludges to the BC are typically in the range of 1% to 8% dry solids and commonly between 3% to 6% dry solids.

All sludges mentioned in Table 1 are monitored through a logger to ensure the provenance and characteristics of the waste. Only sludges from WRCs owned and operated by WW are discharged in the Permitted area.

Seasonal variation may affect the composition of the incoming sludges. Sludge age e.g., older waste may have increased septicity.

WW understands that the characteristics of and mixing of liquid sludges will influence the anaerobic digestion process and therefore, all digestion processes on site are routinely monitored and sampled as listed in Table 8.

Table 8

Parameter	Unit	Frequency	Method
Import Feed Volume	m ³ /day	Daily	Logger
Import Feed Suspended solids	% dry solids	Daily	Logger
Digester feed volume	m ³ /day	Daily	SCADA
Volatile Matter of Feed (if AD)	%VS	Weekly	Manual sample / Lab
Volatile Matter of Digesters (all sites – APD & AD)	%VS	Weekly	Manual Sample / Lab
Biogas Production	Nm ³ /day	Daily	SCADA
Hydraulic Retention time	HRT (hours)	Daily	Calculated
Temperature of Digesters	Deg C	Daily	SCADA
Digester Dry Solids	% dry solids	Weekly	Lab
Digester Outlet volatile matter	%VS	Weekly	Lab
Metals		Monthly	Lab
Ammonia	mg/kg DS	Weekly	Lab
pH	-	Daily / Weekly	Lab
Alkalinity	mg/l	Weekly	Lab
VFA	mg/l	Weekly	Lab
OLR	kgVS/m ³ /day	Weekly	Calculated
CH ₄ within gas production	%	Weekly	Manual Sample
O ₂ within gas production	%	Weekly	Manual Sample

Please note, online instruments (such as flowmeters, temperature probes) used for monitoring of the digesters are calibrated annually.

If the digestion site experiences microbiological non-conformance with its HACCP Plan (Hazard Analysis and Critical Control Plan) or digestion feedstock changes are found, this suggests possible changes in sludge characteristics from the origin sites. Subsequently, an investigation into additional non-audited origin sites will be completed, focusing on sites which have undergone recent significant process changes.

6.5. Waste transfer notes

As waste movements are transferred as internal movements between WW sites using Wessex Water tanker fleet; season tickets are used, and individual waste transfer notes are not generated.

Wessex Water has an upper tier waste carrier registration maintained by the Wastewater Compliance team: Reference: CBDU96562.

Waste Rejection Procedure

7. Waste rejection procedure

7.1. Rejection overview

Where waste arrives at site and is not acceptable it will need to be rejected.

Rejection criteria include:

- Logger process is not operating (booking via Tanker Desk has not taken place).
- Waste Transfer Note (WTN) is missing, incomplete or contains errors (NB a Season Ticket is a type of Waste Transfer Note).
- Waste is a hazardous waste.
- Site closure, maintenance, breakdown or bad weather.
- Failed to book a sludge load in advance and the site is unable to accept it.
- Waste has not been through the pre-acceptance and acceptance procedures (except emergencies).
- New waste stream that has not gone through the pre-acceptance assessment.
- Load has failed any of the visual, odour or pH checks carried out at the receiving BC.
- Load does not meet all of the pre-acceptance criteria as per [BIOF037](#).
- Cake stack ability assessment is not met

The above list is not exhaustive. Further unambiguous rejection criteria may be acceptable.

When a tanker of waste has to be rejected for one of the reasons above, the waste will be quarantined within the vehicle and will not be unloaded to site. The vehicle will then be removed from the BC and the load taken to a different WW liming site

When a waste skip has to be rejected for one of the reasons above, the waste will be quarantined and will not be unloaded to site. The vehicle will be removed from the BC and the load taken to be re-processed or to an external permitted treatment facility.

7.2. Rejection process

All sludge loads are booked in via TranSend and managed through the tanker desk; the tanker desk shall be responsible for arranging alternative routes for any rejected loads in collaboration with the process scientists. Out of hours tanker drivers are to contact ROC who will check capacity at alternative sites and reschedule the load accordingly.

All cake loads are managed by the Biosolids team and they will arrange an alternative treatment route as required upon receiving notification that a skip has been rejected.

The BC does not currently accept any wastes from 3rd parties (unless it is from other Water Companies), but where a 3rd party waste is rejected, it will be for the 3rd party to identify and agree a new acceptable treatment location.

7.3. Hazardous waste

No hazardous wastes are included on the site permit so no wastes should be able to be booked into site. If a hazardous waste arrives and needs to be rejected, then in addition to the above process, a new consignment note is generated, as per guidance on the GOV.UK website (link

below) and the waste carrier will need to contact the Environment Agency. [Hazardous waste: rejected loads guidance](#)

If hazardous waste arrives without a consignment note (including with a Waste Transfer Note) then a written explanation of the rejection must be provided to the carrier that includes:

- The reason for rejection of the waste
- The description or classification of the waste, if known
- The names of the producer, holder, consignor, and carrier
- A consignment note code you assign in the format REJECT/XXXXX where 'XXXXX' is any 5 letters or numbers you use to give the load a unique code.

Wessex will then need to:

- Keep a copy of the explanation in our records.
- Give one copy to the carrier.
- Send a copy to each of the producer, holder, and consignor (they may be the same) as soon as you can.
- Use this information for returns to the Environment Agency and to the waste producer or holder.

Speak to the Wastewater Compliance team and see [ENVWG003](#) for more guidance on consignment notes.

8. Document changes

If any changes are made to this document, please inform the Regional Odour Process Scientist.

Revision history

Issue	Date	Description	Prepared by
1	June 2022	First issue	Mike Foley
2	May 2023	Second Issue – Revision to incorporate TRTWP534 and TRTWP535 to reflect Schedule 5 requests	Rebecca Lamb Hafedh Benamor
3	December 2023	Third Issue – Revision to make a generic document to apply to the 5 BC's rather than a site-specific document. New document reference TRTWP549	Rebecca Lamb
4	July 2024	Amended roles and responsibilities to show tanker drivers will be taking the samples	Rebecca Lamb
5	February 2025	Formatting, streamlining and addition of out of hours info to rejection process	Louise Antell

6	May 2025	Addition of cake pre-acceptance, acceptance and rejection. Plus formatting changes.	Florencia Ramirez Diaz James Bezer Louise Antell
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