



**Garth Isaf Farm
Efail Isaf,
Pontypridd,
Rhondda Cynon Taff
CF38 1SN**

CONSTRUCTION QUALITY ASSURANCE PLAN

For the use of derived material from Inert/Non-Hazardous Construction Waste

Reference Number RJPH WAST-002 CQAP

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CONTENTS

Ref	Heading	Page
1	Construction Quality Assurance Plan (CQA) Information	
	1.1 Design	2
	1.2 Method Statements for the construction of the works	3
	1.3 Criteria for Rejecting Materials	3
	1.4 Assessment of acceptable limits of design criteria	3
2	CQA Plan Details	
	2.1 Records to be kept and method of reporting	4
	2.2 Surface water drainage system	5
	2.3 Groundwater borehole monitoring	5
	2.4 Gas monitoring boreholes	5
	2.5 Permeability testing	5
	2.6 Field trials	5
3	CQA Plan Guarantees	
	3.1 Geotechnical Properties of Materials to be Used	6
	3.2 Checks and Controls of Constructed Works	6
	3.3 Staff training on CQA	6
	3.4 Records of compliance	6
	3.5 Procedures to confirm material used is suitable for use	6-7
4	CQA Supervision	
	4.1 Supervision of the CQA and the works to be completed	8
5	Site Records	
	5.1 Details of records to be kept relevant to the construction activities	9
6	Validation Report	
	6.1 Requirements to be included in any Validation Report	10
7	Aftercare Monitoring	
	7.1 Requirements for any Aftercare Monitoring and Surrendering of any Permits	11

1. CQA Plan - Information

1.1 Design

The application is related to the proposed works to be carried out at the Garth Isaf farm where some 5.5 hectares of land are to be re-profiled, hereafter referred to as the Works.

A design has been produced by C D Gray and Associates Ltd, professional civil engineering consultants, and has received Local Authority planning permission, reference 03-/1595/10. Copies of the Planning Permission and the design drawings are included in supporting document RJPH WAST 003 – Specification for the Works.

The proposed works include introducing a drainage medium to the existing surface drains in the area (to act as future sub-surface drains), re-profiling the whole area to raise the general elevation of the site to profile for an amenity lake and manège. The final elevations will be to the free draining design levels as produced and issued for construction purposes by the designers working to a brief to provide aesthetically pleasing meadow like slopes suitable for grazing and silage production.

The works are to construct any fills and provide any drainage or graded products with materials derived from imported waste. Where there are small quantities of cut-fill or topsoil activities using in-situ materials, these will not be suitable for use without any treatment.

This Construction Quality Assurance Plan sets out in detail the control to recover waste into non-waste to be used to complete the works. It forms part of a suite of documents relevant to waste recovery at Garth Isaf Farm, CF38 1SN (the Documents) and therefore should be read in conjunction with

RJPH WAST 001 –	Waste Recovery Plan
RJPH WAST 002 –	Construction Quality Assurance Plan
RJPHWAST 002A –	Quality Management System
RJPH WAST 003 –	Specification for the Works
RJPH WAST 004 –	Site Condition Report (Including Historical Fill)
RJPH WAST 005 –	Environmental Action Plan

where any ambiguity is found between documents, then the more specific/onerous detail is to be dominant.

1.2 Method Statements for the construction of the Works

To ensure that the works are completed to an acceptable standard, a bespoke specification, RJPH WAST 003 – Specification for the Works, has been developed to prescribe method statements and products for the construction of the Works. The Specification is based on industry codes of practice, specifications and standards. Details of the Material selection, Factory Production Control and target products etc. are to be found in the associated document RJPH WAST 002A – Quality Management System, however, a brief overview is provided herein as follows:

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1.3 Criteria for rejecting materials not suitable for the works

As part of the management control of materials to be used in the Works, the CQAP/QMS includes protocols and procedures to ensure only suitable material is used.

Basically, the procedure for selection of materials is as follows:

Pre-delivery

Proposed supplier of waste provides soil reports/test results to demonstrate the material is of inert or non-hazardous state and asbestos free. If the material is acceptable then delivery is arranged.

Small quantities, generally less than 200 tonnes, where no soils report or test results are available, may be considered by inspection on site and completion of a Waste Information Form before delivery.

Delivery

If collected by RJPH, at point of loading, drivers are instructed to carry out visual and olfactory inspection of material for any signs of non-conforming material. If found, then the loading is refused and the driver contacts head office for instructions.

If delivered by others, prior to tipping off, a visual and olfactory inspection is carried out and if there are any signs of non-conforming material is found then the load is refused.

Processing stage

Following tipping, further visual and olfactory inspection is carried out and if any non-conforming material is found then the material is removed to quarantine for sampling and testing by a suitable testing laboratory. Subject to test results the material is then either accepted into the Works or removed to a suitably licensed tip.

1.4 Assessment of acceptable limits of design criteria

Materials and processes to ensure that the works remain within the acceptable limits of the design criteria are set out in the Specification.

2. CQA Plan - Details

2.1 Records to be kept and method of reporting

In order to demonstrate that the works have been constructed in accordance with the permit and design, there are numerous records required to be kept on a legal and best practice basis. All records will be kept for a minimum of two years after completion and surrender of any permit, unless required for longer by permit or legislation etc. These records include, but are not necessarily limited to the following:

Pre-delivery

Soil reports from potential waste provider

WAC testing results to demonstrate material is compliant to permit

Test results to show that the material is asbestos free

Waste Information Forms

Transport and Delivery

Duty of Care records, that identify source of material, WAC classification of material etc.

Processing

General plant sheets

Environmental monitoring, sound level monitoring etc. during processing to maintain good neighbour policies

Filling and construction

Material process for fill material and aggregate use, will be sampled and tested as per the Specification, any test results will be maintained a minimum of twelve months after the surrender of permits for the works.

Performance monitoring to placed fill regarding compaction, particle size and consistency etc. will be as per the Specification.

Finishing to profile of designs

Finishing tolerances are included for various elements of the works in the Specification.

2.2 Surface Water Drainage System

The existing surface water drainage system will be maintained during the works and improved due the attenuation aspect of the lake to be constructed. Other features may be developed as the works are completed and returned to pastoral use. A plan of the existing surface water drainage layout is included in the Specification.

2.3 Groundwater borehole monitoring

As the works do not affect any aquifer then no groundwater monitoring boreholes are required.

2.4 Gas monitoring boreholes

Due to the nature of the area and the inert characteristic of material to be used within the works, no gas monitoring boreholes are required.

2.5 Permeability Testing

The site does not cover any principal or secondary aquifer, however, any permeability testing required relative to the works is set out in the Specification.

2.6 Field Trials

Any permeability testing required relative to the works is set out in the Specification.

3. CQA Plan - Guarantees

3.1 Geotechnical Properties of Materials to be Used

Geotechnical properties of materials to be used in the works will be controlled by the selection criteria set out in the Specification and the Quality Management System

3.2 Checks and Controls of Constructed Works

Checks and controls of constructed works will be controlled by the relevant section of the Specification advising on acceptable tolerances etc. and may include surveys completed at pre-construction, periodically during construction and at post completion stages.

3.3 Staff training on the CQA

All staff expected to be deployed on works will have suitable training on the CQA/QMS. This will include, but is not necessarily limited to, the following:

- Site specific induction
- Tool box talks on the requirements of the CQA
- Relevant equipment training to ensure competent operation of machinery and correct delivery of the requirements of the CQA.

Records of all staff training, contents of training, date and time of training etc., will be kept in the Head Office under RJPH Human Resources with copies included in any Permit or Deployment related audit files.

3.4 Records of Compliance

Checks and controls of compliance to the CQA for the constructed works will be controlled by the relevant section of the Documents. Records will be maintained as necessary for any audits etc.

3.5 Procedures to confirm material used is suitable for use

In order to confirm that material to be used is suitable for use, various checks will be completed throughout the selection, preparation and processing stages of treating imported

waste to ensure compliance. Such checks will include but will not necessarily be limited to, the following:

- Pre-delivery/collection reviews of test results/waste identification forms on materials
- Visual and olfactory checks on materials at point of collection and when tipping off on site.
- Post processing checks as set out in the Specification.
- Post placement checks as placing of fill progresses

The frequency and type of control procedure will be controlled by the relevant section of the Specification.

4. CQA Supervision

4.1 Supervision of the CQA and the works to be completed

Although the site does not cover any principal or secondary aquifer, supervision of the CQA and the works to be completed under the CQA will be supervised by a suitably qualified and experienced person. For waste recovery aspects this may involve WAMITAB accreditation of staff at a level to be determined by any Permit issued by Natural Resources Wales etc.

5. Site Records

5.1 Details of records to be kept relevant to the construction activities

Records to be kept relevant to the construction of the works will be as set out in the Documents relevant to the various activities to be completed. However, records will generally include, but may not necessarily be limited to, the following:

Materials

- Testing results, waste information forms for pre-delivery/collection
- Waste Transfer Notes
- Plant sheets recording dates and time of activities of processing/treatment
- Any other periodical or progressive records required by any Permit issued.

Works

- Isopachyte surveys, pre-works, progressive as required and as built post completion
- Test results on materials recovered for use and post use
- Periodical photographic surveys to record the progress of the works
- Site diaries reflecting activities carried out on a daily basis
- Records of any rejected/unsuitable materials and actions relevant
- Quarterly/Annual progress monitoring
- Post completion monitoring as required by Aftercare Monitoring

6. Validation Report

6.1 Details of records to be kept relevant to the construction activities

Records to be kept relevant to the construction of the works will be as set out in the Specification but will include as a minimum the following:

Validation Report Records

- Records that the works were constructed to specifications for earthworks
- Records that demonstrate that the material used in the works were suitable
- Details to show compliance to the CQA
- Records of any periodical inspections by relevant CQA staff
- Copies of the site engineer/supervisor's records

Validation Report Results

- Results on any post-acceptance testing on material to show suitability
- Results of any field testing or trials on material to demonstrate suitability
- Validation by a suitably qualified experienced person that the construction was carried out in accordance with the Specification.
- Records of any unsuitable material and its treatment
- Any other site-specific information to prove the integrity of the construction.

Validation Report Details

- Details to show compliance with the CQA
- Any departures from the agreed plan, including reasons why and the changes made
- Site plans showing periodical progress of the works
- Dates and times of construction of the works
- 'As built' plans for the constructed works
- Plans showing test locations

7. Aftercare Monitoring

7.1 Requirements for any Aftercare Monitoring and Surrendering of any Permits

Monitoring of the constructed works may continue after completion dependant on results on materials carried out during the works. Such aftercare will be as agreed with permitting authorities and relevant to the surrendering of any permit.

An Agricultural Benefit Statement, included as an addendum to the Specification, will be the guide to producing soil capping, manufactured topsoil and crop development.