

FACTORY PRODUCTION CONTROL MANUAL



RECOVER | RECYCLE | REUSE

ASH AGGREGATES LIMITED

Shellway Road

Ellesmere Port

CH65 4LQ

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1. Introduction

This Factory Production Control Manual (FPC) outlines the systems adopted by ASH Aggregates Limited control the testing and conformity of the production of aggregates from waste, ensuring conformance with relevant Permits, Standards and Specifications as listed below.

- Environmental Permit - EPR/GB3808GY
- WRAP Aggregates Quality Protocol
- EU Construction Products Directive
- EN 12620 (Aggregates for concrete)
- EN 13139 (Aggregates for mortar)
- EN 13242 (Aggregates for unbound & hydraulically bound materials for use in civil engineering work & road construction)
- EN 13285 (Unbound mixtures – specifications)
- SHW Specification for road works (Series 500,600 & 800)

This document details the nature and frequency of inspections, sampling and testing carried out on measuring and manufacturing equipment, raw materials, processes and finished products.

This document forms part of the ASH Group Quality Management System (ISO 9001) and as such contains references to the ISO 9001 Standard or other standards, records and documents, some not discretely linked to this document.

2. Organisation

2.1. Responsibility and Authority

The Site Production Manager is responsible for the implementation of this Manual on site. The Production Manager can delegate responsibilities or tasks to any suitably trained personnel on the site, as required.

The Site Production Manager is responsible for the quality and conformity of the products produced and the records keeping of quality checks and quality deviations.

2.2. Management Representative

The management representative for the FPC Document is the ASH Group Environmental Compliance Manager (compliance@ashgrouppltd.co.uk). The Group Environmental Compliance Manager is responsible for the maintenance of the company ISO standards.

2.3. Management Review

This FPC manual, the quality control procedures on site, the analysis results and site production performance are reviewed on an annual basis or more frequently if required due to demand changes, legislative updates etc.

This review will be recorded as part of the company QMS.

3. Control Procedures

3.1. Control Manual

Control of the plant is as set out in the manufacturers Manual. A copy of this manual is always available in the Plant Control Office. This Manual is accompanied by the manufacturers bespoke mobile phone application. The operation and maintenance set out in the manual (and the APP) are carried out on a daily basis as per the outlined schedule.

With regards to product quality, the plant runs autonomously from start up to shut down, provided feed is provided. Visual checks are carried out as per the manufacturers schedule throughout the day. If a problem is identified, the site manager will review and consult the manual.

Due to the intelligent / autonomous operation of the plant, problems with a potential to impact on the end product are likely to require manufacturer support.

3.2. Document and Data Control

All documents and records maintained as part of this FPC Manual are controlled under the Company ISO 9001 QMS document control system.

All paperwork is clearly identified in the header or footer with title and version number. Printed paper copies are considered uncontrolled once printed.

3.3. Sub-Contract Services

The treatment of waste is not likely to be subcontracted on the site. Nonetheless, all subcontractors carrying out works with the potential to impact on the quality of product, permit requirements, site health and safety and general operations will be inducted onto the site and will be accompanied by a company representative whilst undertaking works with the above potential impacts.

3.4. Knowledge of the Raw Material

Documented Input Controls, as outlined in Section 3, are in place as part of the Company QMS (ASH-QM-PD-08B) which record the following:

- The nature of the raw material including waste classification
- The source and place of origin, if different
- The supplier and carrier, if different
- Permit details if arising from waste facility

This information on incoming loads is recorded on the site's weighbridge which inputs directly to Dataset, the Company's electronic waste tracking database.

4. Management of Production

- Production is managed in-line with the Environmental Permit for the site and the conditions contained therein. Accepted waste types are only as set out as permitted.
- Hazardous substances are not permitted and therefore Pre-acceptance checks eliminates high contaminant levels. The potential build-up of contamination in the

system is monitored via quarterly cross-site chemical analyses at a UKAS approved laboratory.

- Output is largely regulated by the market and the demand for various products. Nonetheless, the site permit conditions restrict the stockpiling of pre-processed materials.
- Processed materials are discharged at discrete points across the plant into clearly labelled bays. These smaller output bays are stockpiled several times throughout the day in larger, clearly identified bays (identified by grade – “20-40mm” for example).
- Stockpile sizes on site are restricted by the site footprint, materials will not sit for long enough to allow deterioration. Furthermore, processed materials are inert and not susceptible to deterioration.

5. Inspection and Test

5.1. General

ASH Aggregates have made available all the necessary facilities, equipment and trained personnel to carry out the required inspections and tests. Test results are available on the company website and/or on request.

5.2. Equipment

Sampling and testing is currently carried out by a UKAS approved third-party with appropriate and accredited equipment and processes. This document will be reviewed prior to testing being carried out in house in line with the ASH QMS and EMS.

Companies employed in this role are, as a minimum, required to be UKAS, AGS and ISO (14001, 9001) certified.

5.3. Sampling

Frequency

All external sampling is carried out on a monthly basis, deemed appropriate due to the invariable nature of outputs from the autonomous plant and homogenous feedstock quality. This frequency of sampling will be reviewed as results are trended over an extended period. On top of the complete grading and analysis suite, and at least on a weekly basis, the site carries out grading of outputs to test method EN 933-1 and establish the fines content of all outputs.

Locations

Sampling is carried out on the product stockpiles as per sampling procedure of the third party Geoenvironmental Specialists.

Where sampling is carried out internally, procedure ASH-QM-PD-08C is implemented.

6. Records

Records of sampling and testing are maintained in the site’s QMS. The test results are available on request and are also available on the company website.

All waste acceptance records are kept for a minimum of three years in the Company Dataset system, Electronic Waste Tracking software.

These records are available for inspection by ISO auditors and Environmental Regulators and are routinely assessed by the Group Environmental Compliance Manager with a documented Corrective and Preventative Action Log.

7. Control of Non-Conforming Product

Product which fails to meet the specifications as set out in the relevant standard can be managed by several routes depending on the non-conformity. These options include:

1. Reprocessing
 - The product can easily be returned to the start of the process and reprocessed until within parameters.
 - A record of the failure, root cause and outcome will be recorded in the site diary.
2. Diverted to another application
 - Whilst failing against the requirements for one standard, the product may meet the grade of another. If this is the case, the product will retain product status and will be diverted as such, identified under its new designation.
3. Diverted as waste
 - If an output fails to meet the requirements of a relevant standard and reprocessing it is not an available option, then it will be diverted as a waste to an appropriate permitted or exempt destination (in line with ASH-ENV-PD-0005).

8. Handling, Storage and Conditioning

Handling

Due to the invariability in the intakes and outputs of this site, cross contamination is not a significant risk. Nonetheless, a minimum of two shovels operate on the site. One for raw material feed and another for product handling.

If a surge in output demand requires both vehicles to be tasked on product handling at the same time then potentially dirty surfaces in contact with the product will be cleaned at one of the cleaning stations located across the site.

Company owned lorries are purposed almost exclusively to waste or product movements. If a change in schedule is unavoidable then the lorry will be cleaned before collecting any products. With regards to customer collections, the customer is responsible for the cleanliness of their vehicle container. Wash-out facility may be made available on site at the discretion of site management.

Segregation

All materials are segregated, from their point of creation in the plant to their loading for offtake. Clearly identified bays are located around the site with all plant operators familiar with the site layout and the output streams from the plant.

If a bay is to be emptied and repurposed to meet demand for a particular product, then the bay will be emptied and cleaned before reuse with another product.

Any contaminated product (including yard scrapings) across the whole site are tipped into the start of the plant and reprocessed.

Cleanliness of handling equipment and storage areas

As outlined above, the site has several cleaning areas, with high pressure hoses, where shovels can clean down before changing role or if there is likely to be carry over from another product type or waste stream.

All vehicles are cleaned down thoroughly at least once throughout the day. No dirty vehicle starts a day's work here and each vehicle, roadgoing or otherwise, is subject to mandatory rigorous start-up checks recorded on the Company defect reporting and maintenance software.

9. Transport and Packaging

9.1. Transport

All company owned or sub-contracted vehicle movements of waste-in and product-out carrying light materials are covered by means of tarpaulin, retractable cover or any other means when on public carriageways.

Third-party / customer collections of products may be advised of the benefits of covering loads but the driver is ultimately responsible for the security of their load.

9.2. Packaging

Where packaged, the aggregate products will not be subject to contamination due to inappropriate packaging materials or methods. The nature of product produced on this site means that settling or deterioration is not likely in transit, regardless of packaging type. If products are generated on the site which have particular handling or storage requirements, these will be clearly identified on the packaging containing them.

10. Training of Personnel

All personnel involved in this Factory Production Control Manual will be / are trained to the procedures outlined within as well as to any other relevant company procedure under ISO 14001, ISO 9001, OHSAS 18001/ ISO 45001 or the Competency Management System (CMS). Records of training are maintained as per the above Management Systems.

Training of personnel and the training requirements of staff is reviewed as necessary and annually as part of the Site Management Review. Records of this review are also maintained as per the EMS.