

Guidance Notes to the Purchasers'/ Specifiers' compliance checklist



Introduction

These Guidance Notes accompany the Purchasers'/Specifiers' Compliance Checklist. The notes provide information on the requirements of the Quality Protocol (QP) for the production of aggregates from inert waste, i.e. the processes and documents that producers must set up to provide evidence that the aggregates produced conform to the Protocol, and the relevant standards/specifications.

This will help in determining that the waste used to produce the aggregate has been fully recovered, is no longer waste and that the requirements of standards and specifications are met fully.

Further information on aggregate Quality Management Schemes is available from the 'Quality' section of [AggRegain \(www.aggregain.org.uk\)](http://www.aggregain.org.uk). Information on Environmental Permitting Regulations for England & Wales and for Waste Management Licences for Scotland and Northern Ireland is available from [NetRegs \(www.netregs.gov.uk\)](http://www.netregs.gov.uk)

1.0 Guidance notes

1.1 Waste management requirements (QP refⁱ 3.4.1, 3.4.4, 3.6.1 and 3.7.1)

- Your site/operation must be either permitted or be exempt from the need for a permit under Environmental Permitting Regulations for England & Wales (licensed under the Waste Management Licensing Regulations or have a permit under the IPPC, or the activities undertaken are exempt from licensing for Scotland and Northern Ireland). Permits (licences S & NI) or proof of exemption registration must be available for viewing.
- If the producer transports waste, including waste from their own construction, excavation and demolition operations, they must have a certificate of registration as a waste carrier. This must be available for viewing.
- If the site/operation accepts waste from others and for all residues leaving the site as waste, Waste Transfer Notes (WTNs) must be used. WTNs must be kept for at least two years.

1.2 Acceptance of incoming waste (QP ref 3.4.1 to 3.4.4 and App C)

The specific site/location must have set up Acceptance Criteria procedures for the incoming waste. Failure to establish such procedures is a non-compliance with the aggregates Quality Protocol.

Acceptance criteria must include a list of wastes that are accepted. The same codes used in the Waste Transfer Notes, i.e. references to the List of Waste Regulations / European Waste Codes, must be used.

The process of waste acceptance, which must be described in the Acceptance Criteria, is at a minimum a visual inspection of the incoming wastes at receipt (either at the weighbridge or on site of arisings) and at tipping/stockpiling.

A procedure for non-conforming incoming waste must be set up, e.g. rejection of loads, quarantine or disposal. Records of how the procedure has been implemented must be kept.

1.3 Production and Standards/Specification requirements (QP ref 3.1 to 3.3 and 3.5)

The facility must have set up a Factory Production Control (FPC), which is mandatory when producing to BS EN Standards and to the aggregates Quality Protocol. The FPC includes the following quality management requirements, which must be implemented:



1.3.1 Generalities on the procedures

- There must be a FPC manual documenting how the FPC is implemented and the procedures for establishing approval, issue, distribution and administration of documentation and data for internal and external use.

- There must be a nominated management representative responsible for ensuring the FPC is implemented.
- The FPC must be periodically reviewed by management to ensure its continuing suitability and effectiveness, and records of such reviews maintained.
- Procedures for controlling sub-contractors must be established.

1.3.2 Production and testing

- There must be a description of how the processing equipment is maintained and adjusted during production.
- There shall be evidence that input materials are stocked in a controlled manner in clearly identified locations.
- There shall be evidence that material taken from stock for processing must be checked for deterioration.
- The finished product must be identifiable up to the point of sale and procedures must be in place and implemented to maintain the quality of the product during handling, storage, transport and delivery.
- Procedures for the use, control, calibration and maintenance of inspection, measuring and test equipment must be set up and followed. The equipment must be uniquely identified.

1.3.3 Training

- There must be evidence that the personnel of the facility are trained on the FPC (including acceptance criteria, procedures for non-compliant input wastes and outputs products, sampling, testing and inspection).

1.3.4 Records

- Records of relevant controls and inspections, calibrations, changes and training for a suitable period of time, as internally defined, must be kept.

The documentation must include a Method Statement of Production (MSP), a description or representation of the production process for each product type, to include input materials, equipment used, actions undertaken at each stage from acceptance of waste to allocation to product stockpiles. The MSP represents the recovery process for the incoming waste and it is part of the FPC.

The aggregates must be produced to a recognisable specification and/or standard, internal or defined by the customer or recognised industry-wide. The specification will define properties and characteristics of the product, as suitable for its application.

1.4 Testing (QP ref 3.6, 3.6.1 and 3.6.2)

A test plan for the production must be established. This will include type of testing for each product and sampling and testing frequency. The procedures must be appropriate to the end use of the recycled aggregates and testing frequencies must comply with the standards/specifications for the aggregate produced. A summary of the frequencies required for the minimum testing requirements within the mainstream standards is provided in section 1.6 of these Guidance Notes. More detailed testing requirements are defined within the aggregate standards and specifications.

A procedure must be in place for dealing with non-conforming products arising during the production process.

1.5 Documentation (QP ref 3.7.2, 3.7.3, 3.8 and 3.9)

The FPC requires that the processes and procedures adopted within the site for the production of aggregates from inert waste must be fully documented. This includes: appropriate quality manuals; description of procedures and roles; records of changes in manuals and procedures; records of training, input materials, management of non-compliant input materials and products, results of the testing undertaken on products and historical results (at least in summary form) showing performance of the production process.

Purchasers should be provided, on request, copies of current and historic test results on products to be purchased. Historic data can be in summary form, e.g. a running graph of test results over time.

The delivery ticket must state the type of aggregate product dispatched and state that the aggregate was produced under a quality management scheme conforming to the aggregates Quality Protocol.

1.6 Minimum testing requirements – Frequencies

The following tables collate the minimum test frequencies required within common standards and specifications, including the minimum requirements of the FPC, for the following tests:

- grading;
- particle shape;
- particle density; and
- composition.



Frequencies are defined in terms of “production week” or similar and/or “production day” and those periods should be defined by the producer depending on the throughput of the plant/equipments.

Production week can be defined as the period of 7 consecutive days comprising at least 5 production days or the period taken to complete 5 production days, whichever is longer. Considering a 2,000 tonnes a minimum week’s production level, a production day would equate to a minimum of 400t of production.

1.7 Departure from minimum test frequencies

Under special conditions the test frequencies may be decreased below those given within the FPC Annex of the standards. Reasons for this could be:

- highly automated production equipment;
- long-term experience with consistency of special properties;
- sources of high conformity; and
- running a Quality Management System with exceptional measures for surveillance and monitoring of the production process.

Where materials are known to be marginal, or if initial test results show them as such, the frequency of testing should be increased.

The producer shall prepare a schedule of test frequencies taking into account the minimum requirements of the relevant FPC. Reasons for decreasing the test frequencies shall be stated in the FPC document.

Table 1: Minimum test frequencies – requirements from standards and specifications

| Property | BS EN test method | Product standards/specifications | Minimum test frequency |
|------------------|-----------------------------|---|--|
| Grading | BS EN 933-1 | BS EN 12620 Aggregates for concrete | 1 per week of production working days |
| | | BS EN 13043 Aggregates for bituminous mixtures | |
| | | BS EN 13242 Aggregates for unbound and hydraulically bound mixtures | |
| | | MCHW series 500/600/800 references BS EN 13242 | |
| | | MCHW series 900 references BS EN 13043 | |
| | | MCHW series 1000 references BS EN 12620 | |
| Particle shape | BS EN 933-3 and BS EN 933-4 | BS EN 12620 Aggregates for concrete | 1 per month of production working days |
| | | BS EN 13043 Aggregates for bituminous mixtures | PD 6682-6 recommends 'no requirement' |
| | | BS EN 13242 Aggregates for unbound and hydraulically bound mixtures | |
| Particle density | BS EN 1097-6 | BS EN 12620 Aggregates for concrete | 1 per month of production working days |
| | | BS EN 13043 Aggregates for bituminous mixtures | |
| | | BS EN 13242 Aggregates for unbound and hydraulically bound mixtures | |
| Composition | BS EN 933-11 | BS EN 12620 Aggregates for concrete | 1 per month of production working days |
| | | BS EN 13043 Aggregates for bituminous mixtures | |
| | | BS EN 13242 Aggregates for unbound and hydraulically bound mixtures | |
| | Annex B of BS 8500-2 | BS 8500-2 | |
| | MCHW clause 710 | All recycled aggregates for MCHW series | |

The competent authority for Environmental Permitting (England and Wales) Regulations is the Environment Agency, for Waste Licensing Regulations in Scotland is the Scottish Environment Protection Agency and in Northern Ireland is the Department of the Environment (Environment and Heritage Service). These agencies are able to confirm or provide information on permits, licences and exemptions to third parties if required. They are also able to require documentary proof of the compliance to the Quality Protocol from recycled aggregate producers who claim to be operating to the Quality Protocol.

Copies of Checklists and Guidance Notes are available from http://www.aggregain.org.uk/quality/quality_protocols/index.html

For additional information on Quality Management Systems go to: <http://www.aggregain.org.uk/quality/index.html>

ⁱ The QP refs. are for numbered sections in the three versions of the WRAP Quality Protocol for the production of aggregates from inert waste covering England & Wales, Scotland, and Northern Ireland.

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