Introduction

These Guidance Notes accompany the Producers’ 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 must be 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). 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)

1.0 Guidance notes

1.1 Waste management requirements (QP ref 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 transporting waste, including waste from your own construction, excavation and demolition operations, you must have a certificate of registration as a waste carrier licence.

- If you are accepting waste from others and for all residues leaving your site as waste, you must use Waste Transfer Notes (WTNs). You are required to keep WTNs for at least two years.
1.2 Acceptance of incoming waste (QP ref 3.4.1 to 3.4.4 and App C)

You must set up specific site/location Acceptance Criteria procedures for the incoming waste. Failure to establish such procedures results in non-compliance with the aggregates Quality Protocol.

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

The process of waste acceptance, to be described in your 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 must be kept of how the procedure has been implemented.

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

You are required to set up a Factory Production Control (FPC), which is mandatory when producing to BS EN Aggregate 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

- You must establish a FPC manual documenting how the FPC is implemented and procedures for establishing approval, issue, distribution and administration of documentation and data for internal and external use.
- You must nominate a 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.
- You must define how any sub-contractors will be controlled.

1.3.2 Production and testing

- You must define how the processing equipment is maintained and adjusted during production.
- Input materials must be stocked in a controlled manner in clearly identified locations.
- 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. Your equipment must be uniquely identified.

1.3.3 Training

- You must ensure that your personnel 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

- You must ensure that records of relevant controls and inspections, calibrations, changes and training are maintained for a suitable period of time that must be defined.

You must also produce 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 recognised 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)
You must define a test plan for your production. 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)
You must be able to supply purchasers, on request, test results from the testing regime undertaken on each product. You must also keep historical records of test results and/or be able to produce summary results, e.g. a running graph of testing results over time.
Delivery documentation shall record the type of aggregate product despatched 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

<table>
<thead>
<tr>
<th>Property</th>
<th>BS EN test method</th>
<th>Product standards/specifications</th>
<th>Minimum test frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grading</td>
<td>BS EN 933-1</td>
<td>BS EN 12620 Aggregates for concrete</td>
<td>1 per week of production working days</td>
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<tr>
<td></td>
<td></td>
<td>BS EN 13043 Aggregates for bituminous mixtures</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>BS EN 13242 Aggregates for unbound and hydraulically bound mixtures</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>MCHW series 500/600/800 references BS EN 13242</td>
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<td></td>
<td></td>
<td>MCHW series 900 references BS EN 13043</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>MCHW series 1000 references BS EN 12620</td>
<td></td>
</tr>
<tr>
<td>Particle shape</td>
<td>BS EN 933-3 and BS EN 934</td>
<td>BS EN 12620 Aggregates for concrete</td>
<td>1 per month of production working days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BS EN 13043 Aggregates for bituminous mixtures</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>BS EN 13242 Aggregates for unbound and hydraulically bound mixtures</td>
<td>PD 6682-6 recommends ‘no requirement’</td>
</tr>
<tr>
<td>Particle density</td>
<td>BS EN 1097-6</td>
<td>BS EN 12620 Aggregates for concrete</td>
<td>1 per month of production working days</td>
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<tr>
<td></td>
<td></td>
<td>BS EN 13043 Aggregates for bituminous mixtures</td>
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<tr>
<td></td>
<td></td>
<td>BS EN 13242 Aggregates for unbound and hydraulically bound mixtures</td>
<td></td>
</tr>
<tr>
<td>Composition</td>
<td>BS EN 933-11</td>
<td>BS EN 12620 Aggregates for concrete</td>
<td>1 per month of production working days</td>
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<tr>
<td></td>
<td></td>
<td>BS EN 13043 Aggregates for bituminous mixtures</td>
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<td></td>
<td>BS EN 13242 Aggregates for unbound and hydraulically bound mixtures</td>
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<tr>
<td></td>
<td>Annex B of BS 8500-2</td>
<td>BS 8500-2</td>
<td>1 per month of production working days</td>
</tr>
<tr>
<td></td>
<td>MCHW clause 710</td>
<td>All recycled aggregates for MCHW series</td>
<td></td>
</tr>
</tbody>
</table>

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.


1 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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