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Circular Economy Programme
Office of Environmental Sustainability,
Environmental Protection Agency,
PO Box 3000,
Johnstown Castle Estate,
Co. Wexford.

Re: IRISH CONCRETE FEDERATION (ICF) SUBMISSION IN RESPONSE TO CONSULTATION ON DRAFT CRITERIA FOR A NATIONAL DECISION ON END-OF-WASTE FOR RECYCLED AGGREGATES

The Irish Concrete Federation (ICF), the national trade representative body for the aggregates and concrete product manufacturing sector in Ireland, welcomes the recent publication by the Environmental Protection Agency (EPA) of the proposed draft criteria for a national decision on End of Waste for recycled aggregates. ICF considers this decision to be a significant milestone in the promotion and development of the circular economy within the construction sector and looks forward to working with its membership and other stakeholders in promoting and driving the increased use of recycled aggregates in the years ahead.

Notwithstanding this, ICF is disappointed with a number of aspects of the proposed national decision which we would like to see addressed before it is finalised and adopted. These concerns, in summary are as follows:

- (i) The environmental restrictions on the use of recycled aggregates are potentially prohibitive and need to be defined more precisely to provide necessary confidence around appropriate use;
- (ii) The criteria as currently constituted will have the unintended consequence of prohibiting winning of recycled aggregate from soil wastes using well proven and established soil washing techniques;
- (iii) The draft EoW criteria apply unnecessary additional technical restrictions on the use of recycled aggregates, over and above those already applied by recognised technical standards (ENs);
- (iv) While the responsibilities on producers to satisfy the requirements of the draft decision / criteria are clear, there are no similar responsibilities placed on users of recycled aggregates, despite the fact that, in many cases, producers will have no control over the end use of the recycled aggregates.

These concerns are elaborated upon briefly in the paragraphs which follow:

(i) Environmental Restrictions

In Annex II of the draft EoW decision, it is noted that use of recycled aggregate is prohibited:

iii. "within 10m of a natural or man-made surface water feature, spring, open drain, lake, turlough likely to flood, or cavernous or karstified limestone feature".



This is open to various interpretations by project promoters / developers and regulatory authorities. One possible interpretation could be that this prohibits the use of recycled aggregates under new or upgraded roads which have (man-made) surface water or drainage features running along the verge or central reserve. In ICF's view the definition of what constitutes a surface water feature or drain for the purposes of this restriction needs to be clear, and in particular, whether it applies to seasonal watercourses, open channels or drains with intermittent flow (predominantly stormwater flows).

It is ICF's view, that in order to promote and facilitate use of recycled aggregates, it is essential that there be no restrictions on their placement or use within 10m of a man-made stormwater drain or channel with intermittent stormwater flows.

The draft EoW decision also prohibits use of recycled aggregate:

xiii. "in an area greater than 100m width x 100m length or in an area greater than 1 km long and over 50 meter in width when used in straight section in liner features".

xiv "within 25m of another area(s) of recycled aggregate where the combined area is greater than 100m in width for square or rectangular applications or the length is greater than 1km and is less than 50km width for linear features;"

The requirement to place virgin aggregate material to separate or divide areas where recycled aggregates may be used (i.e. areas greater than 100m width x 100m length or areas greater than 1 km long and over 50m wide) is likely to create operational difficulties in the physical placing of the materials in question. This will generate additional cost, time and management effort for contractors and could ultimately result in contractors opting to use virgin aggregates where such constraints do not exist.

It is also not clear how a separator / dividing strip of 25m will achieve any environmental benefit in practice. The separator strip will not inhibit flows through unbound aggregates (recycled and natural) used in civil engineering applications as they are all granular, promoting rather than inhibiting through flows, and ultimately discharging and mixing in line drains / channels (or otherwise percolating down to underlying groundwater bodies).

In ICF's view, these restrictions should be reconsidered and removed as they may, in practice, further limit and disincentivise the use of recycled aggregates for the already limited applications for which they will be approved.

(ii) Recycled Aggregates obtained by Soil Washing

Ireland has (to date) managed to source much of the aggregates required for construction and civil engineering purposes from naturally occurring deposits. However, with increasing planning and environmental restrictions being applied to the winning of aggregates from such sources, coupled with the sustainability benefits for the sourcing and production of such material closer to development sites, there is an increased need to diversify the sources of these aggregates. Therefore, ICF would make the following points:

- The Draft End-of-Waste Criteria for Aggregates includes inert waste soil and stone (17 05 04).
- Washing and grading of soil and stone recovers aggregates and sand from clays to produce aggregates suitable for most applications, including multi strength concretes both structural and non-structural.
- Aggregates produced by washing of inert soil and stone are analogous to natural aggregates derived from a commercial sand and gravel operation.



- There are harmonized European standards for aggregates used in construction and Civil Engineering projects including aggregates used in construction products such as ready-mixed concrete, concrete blocks and precast concrete.
- Each of these standards has detailed, prescriptive requirements for recycled aggregates including quality control and durability parameters based on the specific end use.
- Aggregates which are recovered from the washing of soil and stone materials are not considered by the material standards to be recycled and are of equivalent quality and performance to virgin aggregates.
- The Draft Criteria places unnecessary onerous restrictions on the use of aggregates recovered from washed inert waste soil and stone (17 05 04) in Annex II. These restrictions are wholly unnecessary from an environmental or human health protection point of view and could potentially create a lost opportunity to recover high quality aggregates from an existing waste stream.

Therefore, ICF suggests that a definition for 'Washed Soil and Stone' be added to Section 2 -'Definitions' of the draft criteria so that this type of recycled aggregate can be specifically excluded from Annex II 'Specific Use and Restrictions on Use'. A suggested definition for 'Washed Soil and Stone' is as follows:

'inert soil and stone under Waste Code 17 05 04 which has undergone a washing and grading process to produce aggregate according to a customer specification or an industry specification / standard for direct use that is not subject to the specific use and restrictions on use set out in this End of Waste Criteria.'

Washed Soil and Stone would be subjected to all the other measures, procedures and controls set out in the Draft Criteria.

This revision to the Draft Criteria will encourage the recovery of these high-quality aggregates for use in the full spectrum of construction products as already specified in the construction products standards. However, without these amendments this material will continue to be landfilled. The draft criteria, albeit unintentionally, would inhibit or render unviable, the adoption of well proven soil recovery / recycling technologies which are already in widespread use in other European countries which have had to address limitations in their local supply of naturally occurring aggregates.

In such circumstances, the ICF considers that the above referenced restrictions should be reconsidered and amended as they may, in practice, further limit and disincentivise the winning and use of natural aggregates won using proven soil washing technologies.

(iii) Technical Restrictions

In Annex II of the draft EoW decision, that use of recycled aggregate is further prohibited for use in

- iv. *"pipe bedding, haunching or surrounding materials around perforate pipe or in drainage construction";*
- v. *"structural concrete or mortar, including concrete blocks or other bound applications for structural use";*
- vi. *"in building structures, including beneath the structure or within its fabric, foundations, or curtilage (within 1m)";*
- vii. *"footpaths adjacent to building structures";*
- viii. *"in civil engineering structures, excluding linear features, including beneath the structure or within its fabric, foundations or supports";*
- ix. *"as unbound granular fill (hardcore) for use under concrete floors and footpaths";*



ICF considers that the technical and market requirements for recycled aggregates are already sufficiently addressed by existing EN standards and associated NSAI standards and guidance and by the quality / conformity requirements in existing construction products legislation, much of which, it is acknowledged, is reflected in the draft EoW decision. Current standards for recycled aggregates, particularly in respect of *'IS EN 12620: Aggregate for Concrete'* and *'IS EN 206 : Readymix Concrete'* reflect the existing technical consensus amongst academic, technical and materials specialists across Europe and are widely used in practice, without any recognised technical or environmental problems arising from use of recycled aggregates. ICF considers that if there are to be further technical and/or conformity requirements to be placed on the production, sale and use of recycled aggregates, these should be implemented by way of revision of harmonised standards and regulations.

ICF is of the opinion that the draft criteria will apply hugely restrictive conditions to the use of recycled aggregates and it urges that such restrictions be further considered and subject to rigorous review and risk assessment before being discounted entirely.

(iv) Responsibility for compliance with restrictions on end use

Although the responsibilities on recycled aggregate producers are clearly enunciated in the draft national End of Waste decision, ultimately, it is incumbent on the purchaser / end-user (over whom the producer has no control or influence) to comply with the restrictions outlined in the Statement of Conformity.

It is noted that while the criteria for recycled aggregate in Section 3 of the draft EoW decision are clear on the obligations of producers, it is entirely silent on the obligation of end users. In addition, Section 3.1 (g) specifically requires 'the producer' to satisfy requirements set out in Sections 4 to 7, which include the restrictions on use. It is further noted that in Section 4, when referencing restrictions on use (listed in Part 2 of Annex II), the draft decision merely requires that restrictions be specified on the Statement of Conformity and is altogether silent as to who is responsible for ensuring compliance with the restrictions (and ultimately securing End of Waste status for recycled aggregates).

It is ICF's view that the End of Waste Decision should make it explicitly clear that provided a producer has demonstrably supplied recycled aggregates to an end-user which meets all the required technical, environmental, producer conformity and recording / report obligations imposed by the national End of Waste decision, no residual liability or duty of care can attach to them under the proposed decision, should the end-user fail to comply with the notified restrictions on use outlined in the Statement of Conformity (and as a consequence fails to attain End-of-Waste status).

Conclusion

ICF hopes that the observations and feedback provided above are helpful and informative and will be taken on board in finalising the national decision on End of Waste for recycled aggregates. Should you wish to discuss any of the points raised in this response in more detail, please contact the undersigned.

Yours faithfully

Gerry Farrell
Chief Executive