

SEPA Position statement

Interim position statement for protecting the water environment in relation to emamectin benzoate in finfish farm regulation. March 2023

1. Purpose

This statement sets out the interim regulatory position on the environmental standard that SEPA will apply to discharges of emamectin benzoate into the marine environment. It replaces our previous interim regulatory position on emamectin benzoate, published in July 2022.

2. Background

Emamectin benzoate is used in Scotland as an in-feed, anti-sea lice medicine by the finfish aquaculture sector.

On 23rd March 2023, the UK Technical Advisory Group¹ published revised recommendations² on environmental quality standards for emamectin benzoate.

In due course, after considering the recommendations, Scottish Ministers are expected to update their Directions³ on environmental standards to SEPA to incorporate directions on emamectin benzoate.

¹ <http://wfduk.org/>

² <https://www.wfduk.org/sites/default/files/EMB%20EQS%20report%20-%20June%202022%20-%20UKTAG%20signed%20off%20-%20revised%2020230224.pdf>

³ <https://www.gov.scot/publications/implementing-water-environment-water-services-scotland-act-2003-assessing-scotlands/>

This regulatory position sets out how, prior to Scottish Ministers issuing updated directions, SEPA will take account of UKTAG's recommendations to ensure appropriate protection of the water environment against deterioration.

3. Applications

This regulatory position applies to all applications to:

- Discharge emamectin benzoate into estuaries or coastal waters, including applications to increase discharges at sites already authorised to discharge emamectin benzoate.
- Make substantial changes to the layout of fish pens (and, hence, substantial changes to discharge locations) at marine finfish farms already authorised to discharge emamectin benzoate (e.g. for the purposes of upgrading pen infrastructure or accommodating a proposed larger biomass of fish).

When determining relevant applications, SEPA will apply the following environmental standard:

Interim environmental standard	
Mixing zone edge	272 ng per kg of sediment (dry weight)

Applications to discharge emamectin benzoate

Applicants will only be able to obtain authorisation to discharge emamectin benzoate if they can show that the discharge would not breach the interim environmental standard at the edge of the farm's permitted mixing zones.

Operators of marine finfish farms authorised to discharge emamectin benzoate under this interim environmental standard will be required to monitor compliance using multi-transect monitoring to demonstrate that the interim environmental standard is met at the edge of the allowed mixing zone.

Applications for changes to the layout of fish pens

The interim regulatory position will not apply to applications for layout changes that meet all the following criteria:

- The location of the centre of the proposed pen group layout is no more than 180 metres from the centre of the current pen group.
- The length and width of the proposed pen group layout are no more than 180 metres greater than the length and width of the current pen group.
- The orientation (bearing) of the proposed pen group layout is within $\pm 30^\circ$ of the bearing of the current layout.
- The assimilative capacity of the coastal waters around the location of the proposed pen group layout to accommodate the farm's discharges is not significantly different from the assimilative capacity of the coastal waters immediately surrounding the existing layout.

All other pen layout change applications will require a modelling assessment to determine if the layout change will result in a significantly different emamectin benzoate environmental footprint on the seabed.

A change in emamectin benzoate environmental footprint will be considered significant if the modelling assessment concludes that:

- (1) the non-overlap of the modelled environmental footprint of the farm after the layout change with the farm's current environmental footprint is likely to be more than 15 %; or
- (2) the modelled area of the environmental footprint of the farm after the layout change is more than 15 % larger than the area of the farm's current footprint.

Where (1) or (2) applies, authorisation of the pen layout change will normally require an associated reduction in the permitted maximum quantity of emamectin benzoate.

The following approach will be used to calculate the reduction required:

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- a) The size and location of the area of seabed exceeding the interim environmental standard under the existing pen layout⁴ will be modelled.
 - b) The size and location of the area of seabed that would exceed the interim environmental standard under the proposed changes in pen layout will be modelled.
 - c) Iterative modelling assessments will be undertaken to determine the reduction in the permitted quantity of emamectin benzoate necessary to ensure the non-overlap of the environmental footprint of the new layout with that of the current layout is not significant.

Where the proposed pen layout changes would relocate the farm's deposition footprint fully outwith the existing deposition footprint, the proposal will be treated as an application to discharge emamectin benzoate for the first time.

Accordingly, the permitted quantity of emamectin benzoate will be varied to be consistent with the achievement of the interim environmental standard at the edge of the farm's mixing zone. The permit will then require the operator to monitor compliance with the mixing zone area limits using multi-transect monitoring.

We will advise applicants of the implications of their proposals to change farm layouts with respect to permitted emamectin benzoate quantities prior to issuing varied authorisations. This will allow applicants to decide whether they wish to continue with their applications.

4. Existing authorisations

Under this regulatory position, SEPA will not initiate variation of the authorised maximum environmental quantity in permits to discharge emamectin benzoate authorised under the original standard of 763 ng/kg of sediment (wet weight).

Permits for discharges granted under the previous interim standards of 12 ng/kg of sediment, 23.5 ng/kg of sediment or 131 ng/kg of sediment will be varied to:

⁴ The "existing layout" means the layout prior to the introduction of the November 2018 interim position statement.

- apply the new interim environmental standard as the compliance standard at the edge of the farms' permitted mixing zones.
- require monitoring of compliance with the farms' mixing zone area limits based on multi-transect monitoring.

Operators of such authorisations may apply for a variation to alter the permitted maximum environmental quantity where they can demonstrate that the alteration will comply with the new, interim environmental standard.

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