

FINFISH AQUACULTURE SECTOR

Use of sea lice medicines at marine finfish farms

1. SEPA's approach

- 1.1 SEPA's focus during the COVID-19 outbreak will be to make our best contribution to [helping our nation get through this public health emergency in a way that protects and improves Scotland's environment](#).
- 1.2 SEPA recognises that during a significant outbreak of COVID-19 the ability of operators to run their operations may be compromised by a lack of available staff, and/or the need to protect staff and minimise transmission of the COVID-19 virus.
- 1.3 SEPA is clear that it expects everyone it regulates to make their best endeavours to meet their environmental obligations. SEPA expects operators to be ensuring that the impacts of COVID-19 on the environment are minimised. SEPA recognises, however, that in some cases operators may be unable to comply for reasons beyond their control.
- 1.4 SEPA's position on compliance, enforcement, monitoring and permitting during the COVID-19 outbreak is explained in separate, [overarching guidance](#). The overarching guidance applies to all regulated businesses.

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1.5 SEPA recognises, however, that in some cases, more [specific temporary regulatory positions](#) may also be needed. SEPA has adopted this temporary regulatory position on the use of sea lice medicines in finfish aquaculture. It will be published on [SEPA's COVID-19 hub](#) on our website.

2. **Background: Control of sea lice at finfish aquaculture sites**

2.1 During this unprecedented public health emergency, SEPA recognises the important contribution of the finfish aquaculture sector to maintaining food security; its continuing responsibilities for the health and welfare of its fish; and its priorities, shared by all organisations and businesses, of keeping workers safe and minimising the risk of contributing to the transmission of the COVID-19 virus.

2.2 Like all food production sectors, finfish farm operators rely on farm workers being on site to look after the fish and to manage production rather than working from home where social distancing is far easier to maintain. SEPA can support fish farm operators during the COVID-19 outbreak by adopting regulatory positions that enable them to protect the environment as effectively

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as possible, look after the health of their fish and maintain food supplies whilst keeping their front-line workers safe.

- 2.3 Over a number of years, fish farm operators have been increasingly using a range of non-medicinal approaches to help manage sea lice infestations and minimise medicine use. During the COVID-19 outbreak, operators may have to rely more on medicine use when access to vessels, specialists in mechanical approaches to lice removal and the number of available farm workers are affected.
- 2.4 The mild winter may lead to the risk of sea lice infestations on farms being higher than normal over the coming months. This will require operators to work harder to maintain control of lice numbers on their fish at the same time as coping with the challenges posed by the COVID-19 outbreak.
- 2.5 Fish farm operators, like all businesses, have to run their operations differently due to the COVID-19 outbreak. There are a number of ways of working they can adopt to help them maintain control of sea lice. These include:
- (a) administering medicines more quickly than normal so they can:
 - maintain control over sea lice on their farms using small, mobile teams of farm workers that can operate independently to minimise the risk of COVID-19 transmission and move between farms quickly; and

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- take coordinated action across farms early in the Spring to drive down lice numbers on farmed fish with the aim of reducing lice challenges in subsequent weeks when the effects of COVID-19 may further reduce the availability of farm workers to manage lice infestations. The sector has advised SEPA that, based on farming experience and scientific advice (the latter confirmed by Marine Scotland), coordinated effort to drive down female lice numbers in the Spring is an effective strategy for reducing the frequency and severity of lice infestation pressure in the weeks that follow;
- (b) using to greater quantities of in-feed medicines than normal at some farms so those farms are able to:
 - manage sea lice infestations if, as a result of the COVID-19 outbreak, they have insufficient farm workers or vessels available to be able to use other medicinal or non-medicinal means of control.

2.6 Loss of control of sea lice on marine finfish farms would result in:

- increased risk to wild salmon smolts and sea trout from elevated concentrations of infectious sea lice in the waters around farms;
 - impacts on farmed fish health and, in the extreme, large scale mortalities;
 - increased risks to environmental quality if the COVID-19 outbreak makes safely removing and disposing of mortalities from fish pens challenging;
- and

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- reduced availability of farmed salmon and trout for consumers as a consequence of damage to farmed fish health and reduced production levels.
- 2.7 SEPA has carefully designed this regulatory position so that it will enable the sector to control sea lice in these exceptionally challenging circumstances in ways that protect against significant, long-term harm to Scotland's coastal waters and keep any localised impacts to a minimum.
- 2.8 After the COVID -19 outbreak, SEPA expects operators to:
- (a) assess the steps they could take to avoid the need to increase discharges of medicines should similar circumstances to those resulting from the COVID-19 outbreak recur;
 - (b) accelerate the use of approaches and techniques that contribute to minimising discharges of medicine residues from marine finfish farming operations.
- 2.9 At a small number of farms, due to the COVID-19 outbreak operators may need to use more of the in-feed medicine, emamectin benzoate, than they are authorised to use. Where they have to resort to doing so, under the conditions of their authorisations, they will not be able to make use the medicine again for a considerable period once this regulatory position ends.

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3. **SEPA position: General**

- 3.1 This regulatory position applies to marine finfish aquaculture sites in Scotland only. It applies until 31 August 2020.
- 3.2 SEPA expects all operators in the finfish aquaculture sector to manage their farms during the period of the COVID-19 outbreak to minimise the risk of harm to the environment as far as possible.
- 3.3 Where operators can continue to do so, they should continue to meet their licence obligations. Where they are unable to do so fully, they should prioritise complying with conditions that directly protect the environment over those of an administrative nature. They should also alert and work closely with SEPA; and document, and make transparent, the choices and actions they take.
- 3.4 The regulatory position describes how and in what circumstances operators may temporarily operate under the conditions of the position.
- 3.5 This temporary regulatory position statement only applies to those matters set out in sections 4 and 5. It does not apply to any other regulatory requirements

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and does not detract from any other statutory requirements applicable to the holder of the environmental authorisation or their operations.

3.6 SEPA understands that all regulated businesses are facing disruption and challenges because of the COVID-19 outbreak. SEPA is helping regulated businesses adjust and adapt to these extraordinary circumstances in which everyone's resources and capacities are severely constrained. To work out the changing help that operators of marine finfish farms may need as the situation develops, SEPA requires the Scottish Salmon Producers' Organisation (SSPO) and the British Trout Association to provide it with a report at the end of each month. The report should set out:

- (a) the challenges the sector is facing, and expects to face, as a result of the COVID-19 outbreak;
- (b) why the temporary regulatory position is necessary as a result of these challenges; and
- (c) the actions the sector is taking to adapt to the effects of the COVID-19 outbreak in order to prevent the need for farms to operate under this regulatory position.

3.7 Decisions by SEPA on whether or not to extend this regulatory position will take account of the reports referred to above. SEPA will aim to provide a minimum of four weeks' notice of any decision to extend, withdraw, or modify the scope

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of, the regulatory position. The regulatory position will only be extended for periods of up to three months at a time.

4. **SEPA position: Time bound limits on bath treatment medicine quantities**

Background

- 4.1 Authorisations for the use of bath treatments include limits on the quantity of medicine that can be used in 3-hour periods and 24-hour periods. These limits manage concentrations in the environment to maintain environmental standards. They can also have the effect of constraining how fast a stock of fish at a farm can be treated for sea lice.
- 4.2 For the purposes of this position, a “medicine treatment cycle” means a cycle of medicine treatment on a single farm during which all the fish on the farm are treated once with a bath medicine, either in situ in their pens but fully enclosed by a tarpaulin or in a well boat.
- 4.3 Delivering a medicine treatment cycle quickly may require that the authorised quantity of medicine is administered over a shorter period of time than normal. The effect of doing so is to produce higher peak concentrations of medicine residues in the discharge plume than would otherwise be the case for 3 to 4

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days immediately after treatment. The difference in the size of the plume would be minimal. The total quantity of medicine residue discharged would also be unchanged.

- 4.4 As well as allowing workers to move between farms more quickly, administering treatments over shorter periods has the potential to reduce the risk that lice from as yet untreated pens re-infect pens that have already been treated. Where this happens, a follow on medicine treatment cycle can be needed, increasing the overall use of medicines.
- 4.5 The position below has been carefully developed to enable medicine treatments to be administered more quickly during the outbreak in ways that:
- a) limit peak concentration rises in the discharge plumes;
 - b) ensure that the extent of plumes remains similar to the extent of plumes that result from treatments made as per authorisation conditions; and
 - c) ensure that concentrations of medicine residues are not elevated as a result of carrying out medicine treatment cycles more quickly in waters around shellfish being grown for production in neighbouring shellfish harvesting areas.

Conditions

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4.6 Breaches of the 24-hour quantity limit¹ for the bath treatment medicine, azamethiphos, will not be treated as non-compliances when reporting on operator compliance or for enforcement, subject to:

- (i) no more than three times the authorised, maximum 24-hour quantity of azamethiphos being used in any 24 hour period²;
- (ii) subject to condition 4.7, a greater number of the farm's pens being treated in the 24-hour period with azamethiphos than have been treated, or could have been treated, within the authorised, maximum 24-hour quantity;
- (iii) either:
 - (a) subject to condition 4.7, the farm's authorised, maximum 24-hour quantity of azamethiphos being sufficient to enable treatment³ of at least 1 pen in 24 hours; or

¹ The permits of farms authorised to discharge azamethiphos include a condition limiting the maximum quantity of the medicine that can be used in any 24-hour period.

² Condition 4.6(i) of the regulatory position does not refer to the azamethiphos dose (ie the concentration of the medicine in a pen). The condition is designed to enable more individual doses of azamethiphos to be administered in 24 hours and, hence, more pens to be treated than could be within the farm's authorised, maximum 24-hour quantity of azamethiphos. The resulting increased rate of discharge of azamethiphos will result in peak concentrations of azamethiphos residues in the environment around the farm being temporarily higher in the hours immediately following the treatments than if using only the maximum, authorised 24-hour quantity of azamethiphos. Around 96 hours after discharge, environmental concentrations are expected to be at, or approaching, the concentrations expected when discharging in compliance with the maximum, authorised 24-hour quantity.

³ "Enable treatment" means that the required dose (concentration) of azamethiphos for an efficacious treatment can be reached in a pen without (a) exceeding the authorised, maximum 24-hour quantity; and (b) requiring an impractical reduction in the volume of the pen. An impractical reduction in the volume of a pen would include where shallowing of the pen would leave insufficient space for the fish or where the resulting crowding of the fish would pose a significant risk to their health or welfare. Paragraph 4.7 describes the evidence that operators must be able to provide to demonstrate that the authorised maximum 24-hour quantity of azamethiphos is sufficient to enable treatment of at least 1 pen in 24 hours (ie that at least 1 pen could have been treated in 24 hours in the absence of this regulatory position).

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- (b) if the farm's authorised, maximum 24-hour quantity of azamethiphos is not sufficient to enable treatment of at least 1 pen in 24 hours⁴, the total quantity of azamethiphos used in the medicine treatment cycle not exceeding the total quantity for treating all the farm's pens calculated for the passing run in the most recently submitted version of the BathAuto modelling spreadsheet;⁵
- (iv) the combined quantity of azamethiphos administered in pens and in any well boats discharging azamethiphos under a Marine Licence at the site during a medicine treatment cycle meeting condition 4.6(i) and 4.6(iii)(b) above;
- (v) the finfish farm not being within 3 km of any active shellfish farm⁶ unless the active shellfish farm is:
 - (a) listed in Annex 1 and the finfish farm is more than 1.8 km from the shellfish farm; or

⁴ Condition 4.6(iii)(b) refers to those farms with an authorisation to discharge azamethiphos but where the maximum, authorised 24-hour quantity of the medicine is too small to enable an efficacious dose of azamethiphos to be administered in practice (eg without impractical shallowing of the pens to achieve the necessary concentration). Typically, these farms will not have been able to use their authorisation to discharge azamethiphos and will have been reliant on other means of controlling sea lice infestations. Authorised, maximum 24-hour quantities are smallest where the receiving sea area has low dispersion characteristics and, hence, limited capacity to accommodate discharges of azamethiphos.

⁵ This information is part the information that is submitted by operators to SEPA whenever they apply for authorisation to discharge azamethiphos.

⁶ "Active shellfish farms" means farms shown as active on the [NMPI](#) unless confirmed as non-active by the operator of the shellfish farm.

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- (b) listed in Annex 1; the finfish farm is between 1 km and 1.8 km from the shellfish farm; and plumes of azamethiphos resulting from the medicine treatment will not reach the shellfish farm; or
- (c) not listed in Annex 1; the finfish farm is more than 1.8 km from the shellfish farm; and plumes of azamethiphos resulting from the medicine treatment will not reach the shellfish farm;

For the purposes of conditions 4.6(v)(b) and (c) above, operators must have suitable evidence that plumes will not reach the shellfish farm. This evidence must include consideration of such factors as the residual direction of water flows at the finfish farm, local tidal excursion distances in relation to the finfish farm, and the topography and bathymetry of the area;

- (vi) there being a minimum of 8 non-treatment days⁷ between the end of an azamethiphos medicine treatment cycle on the farm (including an azamethiphos medicine treatment cycle involving treatments in tarpaulins, in a well boat or in both) and the start of a further cycle of treatment with azamethiphos on the farm;

⁷ 8 days is the half-life of azamethiphos in the environment used by SEPA in modelling bath treatments.

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- (vii) action to control salmon louse numbers being appropriately coordinated among farms across a suitable area of sea⁸ so as to minimise the risk of lice from other farms re-infecting treated farms with lice;
- (viii) giving consideration to how efficacious the treatment with azamethiphos is likely to be and keeping a record of these considerations; and
- (ix) SEPA being:
 - (a) notified in advance of each case where the 24 hour quantity limit for azamethiphos in the farm's authorisation is to be exceeded;
 - (b) provided with a suitable explanation, specifically relating to the effects of the COVID-19 outbreak, as to why it was necessary to exceed the 24 hour limit; and
 - (c) provided with evidence that the conditions in 4.6(v) above were satisfied.

4.7 For the purposes of condition 4.6(ii) and 4.6(iii)(a), operators must have, and be able to provide SEPA with, evidence that the maximum, authorised 24-hour quantity of azamethiphos:

- (a) has been used to treat at least 1 pen in 24-hours prior to application of this temporary regulatory position statement; or
- (b) is sufficient to enable treatment of at least 1 pen in 24 hours.

⁸ These areas are likely to be based on identified [farm management areas](#).

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The evidence must be in the form of previous treatment records or written confirmation from a vet⁹.

Concurrent treatment in well boats

4.8 Provided condition 4.6(iv) above is met, discharges of azamethiphos residues from pens made in the same 24-hour periods as marine licensed discharges at the site from well boats will not be treated as non-compliances when reporting on operator compliance or for enforcement.

Notifications

4.9 The notifications referred to in 4.6(ix)(a), the information listed in 4.6(ix)(b) and a summary of the evidence referred to in 4.6(ix)(c) should be submitted to aquaculture.notifications@sepa.org.uk at least two working days in advance of the medicine treatment cycle commencing.

4.10 If you cannot comply in whole or part with the condition of this regulatory position in paragraph 4.9 of providing two working days' notice prior to

⁹ Some farms may not have previous treatment records because they have not used azamethiphos. For example, the farm may only recently have been authorised to discharge azamethiphos or the operator may have elected to use alternative lice controls and, hence, not previously had to make use of the farm's authorisation to discharge azamethiphos. For these farms, written confirmation from a vet is needed as evidence that the authorised maximum 24-hour quantity of azamethiphos is sufficient to enable treatment of at least 1 pen in 24 hours.

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commencing a medicine treatment cycle, the information listed in 4.6(ix)(b) and a summary of the evidence referred to in 4.6(ix)(c), you must notify SEPA without delay.

4.11 Details of the evidence referred to in paragraph 4.6(ix)(c) should be reported when submitting your data returns on azamethiphos use in accordance with your authorisation's reporting requirements.

Re-treatments

4.12 The expectation on which this regulatory position is based is that treatments at three times the 24-hour quantity limit for azamethiphos will not require to be repeated at frequent intervals. Where repeated treatments are being made, the operator will be expected to provide SEPA with a suitable explanation as to why this is necessary.

5. **SEPA position: Emamectin benzoate conditions**

Background

5.1 Emamectin benzoate is a sea lice medicine administered via medicated feed. It provides protection from re-infection by sea lice for a period after treatment before being excreted.

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- 5.2 Because it is mixed with feed, it requires significantly fewer workers to administer than other medicines and mechanical lice removal. This makes it easier for operators to maintain social distancing and operate effectively if they experience large reductions in the availability of workers during the COVID-19 outbreak.
- 5.3 A small number of farms are very limited in the biomass of fish that they can treat with an effective dose of emamectin benzoate on account of the quantities of the medicine provided for in their authorisations. The sector has asked SEPA for these farms to be able to use more emamectin benzoate than their authorisations permit if the use of emamectin benzoate is the only practical option for maintaining control over sea lice during the COVID-19 outbreak.

Farms operating to interim environmental standard

- 5.4 Since October 2017, SEPA has applied [interim environmental standards](#) when determining applications for authorisation to discharge emamectin benzoate. These standards are considerably tighter than the environmental standards against which discharges from farms authorised before the interim environmental standards were introduced are regulated.

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5.5 In a number of cases, the authorised quantities of emamectin benzoate are only sufficient to enable an effective dose of the medicine to be administered when the farms' fish are very small. Around¹⁰ 7 of the farms authorised under the interim environmental standards do not have a sufficient authorised, maximum environmental quantity to administer an effective dose to fish of 1 kg¹¹.

Farms granted biomass increase since October 2017

5.6 Since the interim emamectin benzoate standards were introduced, a number of existing farms that were already authorised to discharge emamectin benzoate have applied, and been authorised, to hold an increased maximum biomass of fish.

5.7 However, these farms were not authorised to increase their emamectin benzoate use at the same time. This was to prevent the interim environmental standards being exceeded beyond the original zones of effect of the farms on the seabed prior to their biomass limit increases.

¹⁰ The numbers of farms given in paragraphs 5.5 and 5.8, and summarised in paragraphs 5.11 and 5.12 are estimates only. They are based on a number of assumptions, including on the number of fish held at the site. The true figures may be slightly higher or lower. Some of the farms may not be stocked with a sufficient weight of fish to have to make use of this regulatory position or the fish may be too large for the farm to do so.

¹¹ Different farms need different quantities for an effective dose because they hold different numbers of fish and hence have different total weights of fish to be treated.

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5.8 At around two of these farms, the authorised quantity of emamectin benzoate is less than that necessary for an effective dose to treat 1 kg size fish. At around five others, the quantity authorised is insufficient for an effective dose to treat fish when they weigh 3 kg.

Request to SEPA for support

5.9 The sector has requested that, if necessary because of insufficient farm workers or vessels due to the COVID-19 outbreak to control lice infestations by other means, farms authorised on the interim standards and those farms that increased biomass without a corresponding increase in the authorised quantities of emamectin benzoate are able to use sufficient quantities of emamectin benzoate to:

- (x) treat fish up to 1 kg in size; and
- (xi) control infestations of the *Caligus* sea louse only when fish are between 1 kg and 3 kg.

Effect of the regulatory position

5.10 The regulatory position will enable farms authorised under the interim environmental standards and farms that varied their biomass since October 2017 to use more emamectin benzoate during the COVID-19 outbreak than their authorisations permit where other options for controlling sea lice

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infestations are unavailable due to the COVID-19 outbreak. This is subject to the conditions detailed paragraph 5.15 below.

5.11 If necessary, due to the COVID-19 outbreak, approximately nine farms in total will be able to increase the size of fish they can treat for infestations of any species of louse, up to 1 kg size fish. When their fish are more than 1 kg in size but less than 3 kg, they will be able to treat the fish if the farm gets an infestation of the Caligus louse.

5.12 Around another five farms that are already able to treat fish greater than 1 kg in size will be able to increase the size of fish they can treat up to 3 kg if the farm gets an infestation of the Caligus louse.

5.13 The farms will be able, temporarily, to use larger maximum environmental quantities¹² of emamectin benzoate. The quantities will be calculated to ensure that the pre-October 2017 environmental standard of 763 ng/kg of sediment (wet weight) is still not breached.

¹² “Maximum environmental quantity“ means the maximum residual quantity of emamectin benzoate in the environment at any one time, taking account of excretion and decay taking account of all previous treatments, which, if complied with, will meet the applicable environmental standard at the edge of the mixing zone. In permits issued prior to June 2019, the term used was total allowable quantity (TAQ).

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5.14 The use of more of the medicine than authorised will result in an increased extent of local impact on the seabed around the small number of individual farms concerned. The extent will vary from farm to farm, depending on the dispersion characteristics of the sites and how much more emamectin benzoate is administered. Once this regulatory position has ended, the farms will be required to address the impact (see 5.15 to 5.17 below) before they are permitted to use emamectin benzoate again.

Recovery of the environment

5.15 Once the regulatory position has ended, authorisation conditions limiting the amount of emamectin benzoate in the environment (ie, as applicable, the maximum environmental quantity or the total allowable quantity) will prevent operators re-treating with emamectin benzoate until concentrations in the environment have returned to levels consistent with, as applicable, the interim environmental standards or the pre-biomass-increase mixing zone extent.

5.16 Depending on the difference between the authorised quantity and the quantity used under this regulatory position, environmental concentrations of emamectin benzoate are expected to take several fish production cycles to recover to concentrations low enough to allow further discharge.

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5.17 After this regulatory position comes to an end, SEPA expects operators to monitor concentrations of emamectin benzoate on the seabed to confirm concentrations have recovered to acceptable levels.

Conditions

5.18 SEPA will not treat breaches of emamectin benzoate treatment limits (maximum environmental quantity or total allowable quantity) as non-compliances when reporting on operator compliance or for enforcement, subject to:

- (a) the farm at which the breach occurs being one:
 - (i) whose discharge of emamectin benzoate residues are authorised under an interim environmental standard¹³; or
 - (ii) that has an authorisation to discharge emamectin benzoate issued prior to October 2017; has been granted authorisation for increased biomass since October 2017; and has not applied for a corresponding variation to its emamectin benzoate authorisation;
- (b) all practical steps being taken to reduce the number of fish stocked or held at the site (e.g. diverting smolts to other farms; harvesting larger fish early where possible or re-locating fish to other available sites) in order to

¹³ Operators should contact SEPA if they are unsure if their discharge is authorised under an interim environmental standard.

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- minimise the quantity of emamectin benzoate required to treat the fish held;
- (c) except in the circumstances described in (d) below, the average weight of fish held in the pens not exceeding 1 kg at the start of the treatment with emamectin benzoate;
- (d) only using emamectin benzoate to treat fish whose average weight is greater than 1 kg if:
- (i) the maximum average weight of the fish treated is less than 3 kg;
 - (ii) there is an infestation of *Caligus* that requires action because of the risk to farmed fish health;
 - (iii) for reasons of the COVID-19 outbreak, the control measures on which the farm would have relied to control such an outbreak (e.g. bath treatment medicines or mechanical removal) cannot be deployed safely or safely deployed fully; and
 - (iv) where possible taking account of staff availability and safety, other measures [ie other than those already taken under (b) above] are taken on the farm to reduce the number of pens that are treated with emamectin benzoate;
- (e) for the purposes of (c) or (d), using only quantities (i.e. as applicable, maximum environmental quantity or total allowable quantity) of emamectin benzoate calculated not to breach the pre-2017 environmental standard of

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763 ng/kg of sediment (wet weight) beyond the 100 m mixing zone around the outer edge of the pens; and

- (f) SEPA being:
- (i) notified in advance that the authorised quantity of emamectin benzoate (ie as applicable, the maximum environmental quantity or total allowable quantity) is to be exceeded;
 - (ii) provided with a suitable explanation in writing relating to the effects of the COVID-19 outbreak as to why the exceedance is necessary;
 - (iii) provided with, as applicable, the maximum environmental quantity or total allowable quantity identified in accordance with (e) and the modelling used to derive that quantity.

Maximum environmental quantity or total allowable quantity

5.19 For the purposes of identifying the appropriate and temporarily revised maximum environmental quantity/total allowable quantity referred to in (e) above, operators must carry out appropriate modelling using the computer model, autodepomod.

Notifications

5.20 Notifications and the information referred to in f(i), f(ii) and f(iii) should be submitted to aquaculture.notifications@sepa.org.uk at least two days in

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advance of emamectin benzoate being administered under this regulatory position.

- 5.21 If you cannot comply with the condition of this regulatory position in paragraph 5.20 of providing two days notice prior to commencing a medicine treatment cycle, you must notify SEPA without delay.

Conditions requiring prior-confirmation from SEPA before authorised emamectin treatments can occur

- 5.22 For farms with an authorisation to discharge emamectin benzoate, SEPA will not treat breaches of any conditions requiring prior-confirmation from SEPA before each emamectin benzoate treatment as non-compliances when reporting on operator compliance or for enforcement.

- 5.23 Prior-confirmation during the COVID-19 outbreak when all organisations, including SEPA, are trying to manage under the challenges of the public health emergency could lead to unnecessary delays in the ability of operators to take action to control lice infestations.

6. **General conditions**

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- (a) You must notify SEPA without delay if you cannot comply, or think you may not be able to comply, with the conditions in this regulatory position statement.
- (b) You must take all such measures as are reasonably practicable to prevent and, where prevention not possible, minimise and mitigate any impacts on the environment resulting from the non-compliance with the requirements specified in sections 3, 4 and 5.
- (c) You must keep records to show that you have complied with the conditions in this regulatory position statement for 12 months from the date of issue of this statement.
- (d) In the event that, due to changing circumstances, you become able to comply with the requirements of your environmental authorisation or other regulatory requirements, you must return to compliance as soon as possible, notwithstanding that this regulatory position statement remains in place.
- (e) This regulatory position statement only applies where non-compliance is unavoidable and a direct result of emergency resulting from COVID-19 outbreak.
- (f) The terms of this regulatory position statement may be subject to periodical review and may be varied or withdrawn at any time. SEPA will provide notice in advance to the Scottish Salmon Producers Organisation (SSPO) and the British Trout Association of its intention to vary or withdraw this position.

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- (g) SEPA reserves its discretion to depart from this regulatory position statement and to take appropriate action as necessary.

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Annex 1

List of shellfish farm locations

This Annex lists shellfish farm locations where SEPA has identified using marine modelling that azamethiphos plumes resulting from discharges from nearby finfish farms at 3 times the authorised 24-hour quantities will be mixed rapidly.

Because of the resolution of the modelling, to control the risk of exposure of the shellfish farms to elevated azamethiphos concentrations, the regulatory position uses the modelling outputs in combination with:

- (a) average tidal excursion distances;
- (b) local checks on the direction plumes will be transported from the finfish farm;
and
- (c) a minimum 1 km separation distance¹⁴ from the shellfish farms.

An average tidal excursion distance (1.7 km) at finfish farms has been derived from a large set of data held by SEPA. The average tidal excursion at farms with greater tidal excursions than 1.7 km is around 3 km. Long tidal excursion distances provide for greater dispersion than short ones, reducing azamethiphos concentrations in plumes.

¹⁴ 1 km is around 60% of the average tidal excursion distance around finfish farms.

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The listed shellfish farm locations are in areas of sea where, due to the high dispersion characteristics of those areas, rapid mixing will control the risk of exposure of the shellfish farms to elevated azamethiphos concentrations. For the listed shellfish farms:

- (a) irrespective of the direction that plumes of azamethiphos leave a finfish farm that is greater than 1.8 km away, the rapid mixing controls the risk that the shellfish farm will be exposed to elevated concentrations of azamethiphos, even if all the nearby finfish farms discharged simultaneously; and
- (b) if a finfish farm between 1 km and 1.8 km away uses 3 times its authorised, maximum 24-hour quantity of azamethiphos, the regulatory position requires additional checks to ensure the protection of the shellfish farm. These checks involve the operator of the finfish farm using suitable local evidence to determine that the resulting plume of azamethiphos will not reach the shellfish farm.

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Table: Annex 1 list of shellfish farm locations

Please note, there may not be an active shellfish farm at all of the locations listed. Whether a farm is active should be checked with reference to NMPI.

No.	Local authority area	Management area	Location	
			Easting	Northing
1	Argyll and Bute	Tuath, na Keal	142900	740200
2	Argyll and Bute	Tuath, na Keal	135400	741700
3	Argyll and Bute	Tuath, na Keal	135300	740600
4	Argyll and Bute	Tuath, na Keal	137100	740300
5	Argyll and Bute	Tuath, na Keal	147500	739100
6	Argyll and Bute	Fyne	216400	709900
7	Argyll and Bute	Fyne	186400	672000
8	Argyll and Bute	Fyne	187600	671000
9	Argyll and Bute	Fyne	191800	683500
10	Argyll and Bute	Fyne	195300	691800
11	Argyll and Bute	Seil Sound to Loch Craignish	177100	719400
12	Argyll and Bute	Seil Sound to Loch Craignish	178100	718200

FINFISH AQUACULTURE SECTOR

13	Argyll and Bute	Seil Sound to Loch Craignish	178500	695300
14	Argyll and Bute	Loch Spelve	165900	725800
15	Argyll and Bute	Loch Spelve	170700	727300
16	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	151000	755500
17	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	195900	734300
18	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	187300	739100
19	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	190600	742200
20	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	181500	726600

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21	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	197400	744600
22	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	194800	743200
23	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	187600	745500
24	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	204700	736300
25	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	151900	755000
26	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	151400	754300
27	Argyll and Bute	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	182400	730000

FINFISH AQUACULTURE SECTOR

28	Argyll and Bute	Loch Caolisport	175300	675500
29	Argyll and Bute	Kyles of Bute	205200	682200
30	Argyll and Bute	Kyles of Bute	206000	680500
31	Argyll and Bute	Gigha	165700	652200
32	Argyll and Bute	Gigha	165600	650000
33	Argyll and Bute		135700	689700
34	Argyll and Bute		185800	723500
35	Argyll and Bute		129600	670400
36	Argyll and Bute		140900	753400
37	Argyll and Bute		175300	619900
38	Argyll and Bute		145500	725800
39	Argyll and Bute		140700	754400
40	Argyll and Bute		200700	678300
41	Argyll and Bute		150800	729100
42	Dumfries and Galloway		205500	565500
43	Highland	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	168500	763400

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44	Highland	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	171500	762700
45	Highland	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	203800	778200
46	Highland	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	214700	761600
47	Highland	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	199800	777800
48	Highland	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	195900	759600
49	Highland	Linnhe, Firth of Lorne, Sound of Mull and Loch Sunart	206300	777300
50	Highland	Moidart	164300	772000
51	Highland	Moidart	165800	773200
52	Highland	Moidart	160900	769800

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53	Highland	Moidart	162800	770900
54	Highland	Torrison	173000	860400
55	Highland	Torrison	186700	854900
56	Highland	Torrison	186000	854700
57	Highland	Carron, Kishorn, Alsh, Duich	171100	837300
58	Highland	Carron, Kishorn, Alsh, Duich	183400	839100
59	Highland	Nevis	178500	794800
60	Highland	Nevis	177800	793300
61	Highland	Ailort	172300	779900
62	Highland	Ailort	173100	779200
63	Highland	Ailort	172600	783300
64	Highland	Sound of Raasay, Ainort, Scalpay	151900	832700
65	Highland		180400	875000
66	Highland	Little Loch Broom	199700	894700
67	Highland	Ewe	185000	889300
68	Highland	Ewe	184400	891100

FINFISH AQUACULTURE SECTOR

69	Highland	Laxford	221500	949200
70	Highland	Laxford	224000	954300
71	Highland	Laxford	221100	948600
72	Highland	Laxford	221100	951200
73	Highland	Laxford	224900	953400
74	Highland	Laxford	223500	955500
75	Highland	Laxford	224600	954300
76	Highland	Laxford	223900	955100
77	Highland	Laxford	220600	950400
78	Highland	Bracadale	139200	831400
79	Highland	Badcall, Chairn Bhain, Eddrachillis	224200	934000
80	Highland		148700	784700
81	Highland		157100	817800
82	Highland		164000	786300
83	Highland		168200	783900
84	Highland		166700	828000
85	Highland		168000	828000
86	Highland		166800	777900

FINFISH AQUACULTURE SECTOR

87	North Ayrshire		219900	654300
88	North Ayrshire		203500	629800
89	Orkney	Central Orkney	349100	1008500
90	Orkney	Scapa Flow	332700	1003700
91	Orkney	Scapa Flow	348400	1000100
92	Orkney	Scapa Flow	348500	1000100
93	Western Isles	Loch Roag	113400	934400
94	Western Isles	Loch Roag	114000	932300
95	Western Isles	Loch Roag	109900	934200
96	Western Isles	Loch Roag	114900	933500
97	Western Isles	Loch Roag	115400	933900
98	Western Isles	Loch Roag	113800	932700
99	Western Isles	Loch Roag	112200	932600
100	Western Isles	Loch Roag	119100	933100
101	Western Isles	Loch Roag	114500	934300
102	Western Isles	Loch Roag	113200	932600
103	Western Isles	Loch Roag	112700	932100
104	Western Isles	Loch Roag	120000	932500
105	Western Isles	E Lewis	137700	924500

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106	Western Isles	E Lewis	137300	924900
107	Western Isles	E Lewis	137600	924800
108	Western Isles	E Lewis	132000	920300
109	Western Isles	E Lewis	136700	921300
110	Western Isles	SE Lewis, E Harris	112500	892500
111	Western Isles	SE Lewis, E Harris	121500	911300
112	Western Isles	E North Uist	100900	879400
113	Western Isles	E North Uist	93900	870700
114	Western Isles	Ronay, Benbecula, N South Uist	84900	839100
115	Western Isles	South Uist	79900	827300
116	Western Isles	South Uist	78500	827700
117	Western Isles	Barra	74900	802600
118	Western Isles	Barra	73300	801900
119	Western Isles	Barra	73900	803100
120	Western Isles	Barra	72600	802400
121	Western Isles	Barra	72100	802900
122	Western Isles	Barra	75900	804400
123	Western Isles	Barra	70900	804700

FINFISH AQUACULTURE SECTOR