

***Canadian Environmental Protection Act, 1999 (CEPA)***

**Application to the Minister for an Investigation of an Offence under CEPA**

**FINAL REPORT TO THE APPLICANT**

Environmental Enforcement Directorate  
Environment and Climate Change Canada

April 25, 2017

**Table of Contents**

**INTRODUCTION..... 2**

**BACKGROUND ..... 2**

**ALLEGED CONTRAVENTIONS ..... 3**

**ALLEGED OFFENDERS ..... 4**

**ENFORCEMENT BRANCH RESPONSE..... 4**

**CONCLUSION ..... 5**

**APPENDIX 1: EXCERPTS OF RELEVANT LAW ..... 6**

## **INTRODUCTION**

The *Canadian Environmental Protection Act, 1999* (CEPA) contains a mechanism for Canadians to apply to the Minister of the Environment for an investigation of an offence under the Act that the individual alleges has occurred. On February 15, 2016, Environment and Climate Change Canada (ECCC) received an application alleging that certain aquaculture activities conducted by Kelly Cove Salmon Ltd. (“Kelly Cove Salmon”) and Northern Harvest Sea Farms Inc. (“Northern Harvest Sea Farms”) violate CEPA’s disposal at sea provisions. Specifically, the applicant alleged that Kelly Cove Salmon and Northern Harvest Sea Farms contravene the Act when treating farmed salmon for sea lice infestations by disposing of disinfectants and pesticides into the sea. As a result of the application, an enforcement officer in ECCC’s Enforcement Branch (EB) inspected the companies. The purpose of this report is to provide the applicant with progress made on the matter and further action to be taken on the file.

## **BACKGROUND**

### **SEA LICE AND THE AQUACULTURE INDUSTRY**

Sea lice are naturally occurring parasites that reside on the bodies of both wild and farmed fish; they attach themselves to the fish and feed on mucus and skin.<sup>1</sup> The term ‘sea lice’ refers to several life stages and species of parasitic copepods that may infest fish and also serve as food for young fish. Left untreated, this parasite weakens the fish and increases their susceptibility to potentially fatal secondary infections.

For over 20 years, sea lice in New Brunswick was controlled and treated with an in-feed drug called Slice®. Over time, sea lice resistance to the active ingredient, emamectin benzoate, increased, and treatment efficacy decreased. Topical treatments using chemicals were then introduced through the use of tarpaulin and well boat treatments.

Tarpaulin treatments generally consist of reducing the depth of the net in the salmon pen, thus reducing the volume of water. The net-pen and enclosed salmon are then surrounded by an impervious tarpaulin and the chemical is added to the recommended treatment concentration.<sup>2</sup> The fish are maintained in the bath for a period of time (usually 30 to 60 minutes). After treatment, the tarpaulin is removed and the treatment water is allowed to disperse into the surrounding water.

Well boat treatments are conducted by pumping salmon into wells or treatment chambers on a ship. Well boats used in New Brunswick typically have two wells each capable of holding

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<sup>1</sup>[www.pac.dfo-mpo.gc.ca/aquaculture/reporting-rapports/lice-pou-eng.html](http://www.pac.dfo-mpo.gc.ca/aquaculture/reporting-rapports/lice-pou-eng.html)

<sup>2</sup> Canada, Canadian Science Advisory Secretariat, *Estimates of the effects of sea lice chemical therapeutants on non-target organisms associated with releases of therapeutants from tarped net-pens and well-boat bath treatments: a discussion*. (Research Document 2014/103) online: Fisheries and Oceans Canada <[www.publications.gc.ca/collections/collection\\_2015/mpo-dfo/Fs70-5-2014-103-eng.pdf](http://www.publications.gc.ca/collections/collection_2015/mpo-dfo/Fs70-5-2014-103-eng.pdf)> [CSAS *Effects of Therapeutants*].

approximately 300,000 litres of water. Fish are pumped into these wells and then treatment is added to the prescribed concentrations on the Pest Management Regulatory Agency label. At the end of the treatment period (approximately 30 minutes) the wells are flushed by simultaneously pumping out the treatment water and replacing it with fresh seawater.<sup>3</sup> The fish are then pumped back into net pens.

## **SECTION 17 OF CEPA**

Under s. 17 of CEPA, an individual may apply to the Minister for an investigation of an offence under the Act that the individual alleges has occurred. The Minister must acknowledge receipt of the application within 20 days, and report to the applicant on progress every 90 days. Under s. 18, the Minister will investigate all matters necessary to determine facts relating to the alleged offence. Once the Minister receives such an application, it is sent to ECCC's Enforcement Branch for review and follow-up.

## **TIMELINE**

On February 15, 2016, ECCC received an application under s. 17 of CEPA, alleging that Kelly Cove Salmon and Northern Harvest Sea Farms violated the Act's disposal at sea provisions. On April 22, 2016, ECCC's Enforcement Branch, in accordance with s. 18 of CEPA, acknowledged receipt of the s. 17 application and informed the applicant in writing that it would be sent to EB for review. The matter was assigned to an enforcement officer in the Atlantic Region. The enforcement officer conducted inspections of Kelly Cove Salmon and Northern Harvest Sea Farms in May 2016. As required by CEPA, progress reports were sent to the applicant on June 2, 2016, August 30, 2016, November 28, 2016, January 26, 2017, and February 24, 2017.

## **ALLEGED CONTRAVENTIONS**

The applicant alleges that Kelly Cove Salmon and Northern Harvest Sea Farms contravene s. 125(1) of CEPA while fish farming by disposing of substances in the sea. Substances include pesticides (azamethiphos and hydrogen peroxide) and disinfectants (sodium hypochlorite, iodophores, formalin, and quaternary ammonium products). The substances are released while treating farmed salmon for sea lice in tarped and/or skirted finfish net pens, from well boats, and while disinfecting well boats, structures and equipment used on site.

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<sup>3</sup> *Ibid.*

## **ALLEGED OFFENDERS**

Kelly Cove Salmon is the salmon farming division of Cooke Aquaculture Inc. Cooke Aquaculture Inc. has 100 farm sites off of the coasts of New Brunswick, Nova Scotia, Newfoundland, and Maine, and employs approximately 2800 employees full time.<sup>4</sup> Kelly Cove Salmon owns several sites in New Brunswick. Two well boats used by Kelly Cove Salmon are referred to in this report: Kelly Cove Salmon owns the Colby Perce, and leases the Ronja Carrier.

Northern Harvest Sea Farms is an aquaculture company with salmon-farming operations in the Atlantic Provinces. The company has approximately 400 employees. Northern Harvest Sea Farms owns a well boat named Ronja that is referred to in this report.

## **ENFORCEMENT BRANCH RESPONSE**

Following receipt of the section 17 application, ECCC enforcement officers conducted site inspections in order to gather information regarding sea lice treatment practices by the alleged offenders and to verify compliance with the CEPA DAS provisions.

On May 11, 2016, enforcement officers conducted an inspection of well boats owned and/or operated by Northern Harvest Sea Farms and Kelly Cove Salmon.

On May 12, 2016, enforcement officers conducted an inspection at a Kelly Cove Salmon office.

Enforcement officers analyzed the information gathered over the course of these inspections in order to determine the following:

1. Whether the use of disinfectants and/or the application of pesticides to treat sea lice using tarpaulin treatments or well boats by Kelly Cove Salmon or Northern Harvest Sea Farms constitute disposal at sea under s. 122(1)(a)-(g) of CEPA;
2. Whether any exemptions under s. 122(1)(h)-(k) of CEPA apply to the above-mentioned activities;
3. Whether there are reasonable grounds to believe that Kelly Cove Salmon or Northern Harvest Sea Farms contravened CEPA.

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<sup>4</sup> [www.cookeaquaculture.com/index.php/about-cooke-aquaculture/divisions](http://www.cookeaquaculture.com/index.php/about-cooke-aquaculture/divisions)

## **CONCLUSION**

Following analysis of the information gathered as part of the investigative process, ECCC's Enforcement Branch has established that both alleged offenders conducted activities that constitute disposal at sea under subsection 125(1) of CEPA.

ECCC's Enforcement Branch has also established that the activities conducted by Kelly Cove Salmon and Northern Harvest Sea Farms, which were inspected as part of this investigative process, do not qualify for any of the exemptions described in s. 122(1)(h)-(k) of CEPA.

As such, ECCC's Enforcement Branch concludes that there are reasonable grounds to believe that Kelly Cove Salmon contravened CEPA when releasing pesticides into the sea using well boats and tarp treatments to treat sea lice, and that there are reasonable grounds to believe that Northern Harvest Sea Farms contravened CEPA when it released pesticides into the sea using well boats to treat sea lice.

Given the conclusions of the ministerial investigation and recommended next steps, ECCC's Enforcement Branch is of the view that future enforcement measures to address the disposal at sea of pesticides used during sea lice treatment by the alleged offenders will mitigate environmental harm posed by disinfectants estimated to be present at very low concentrations as a result of usage in well boats.

As appropriate, enforcement officers will take enforcement action in accordance with the *Compliance and Enforcement Policy for the Canadian Environmental Protection Act, 1999*, available online at [www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=5082BFBE-1](http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=5082BFBE-1).

## **APPENDIX 1: EXCERPTS OF RELEVANT LAW**

**Section 17(1)** *An individual who is a resident in Canada and at least 18 years of age may apply to the Minister for an investigation of any offence under this Act that the individual alleges has occurred.*

**Section 21(1)** *The Minister may discontinue the investigation if the Minister is of the opinion that*

*(a) The alleged offence does not require further investigation; or*

*(b) The investigation does not substantiate the alleged offence.*

### **Report**

*(2) If the investigation is discontinued, the Minister shall*

- (a) prepare a report in writing describing the information obtained during the investigation and stating the reasons for its discontinuation; and*
- (b) send a copy of the report to the applicant and to any person whose conduct was investigated.*

*A copy of the report sent to a person whose conduct was investigated must not disclose the name or address of the applicant or any other personal information about them.*

**Section 3(1)** *“SUBSTANCE” means any distinguishable kind of organic or inorganic matter, whether animate or inanimate, and includes*

*(a) any matter that is capable of being dispersed in the environment or of being transformed in the environment into matter that is capable of being so dispersed or that is capable of causing such transformations in the environment,*

*(b) any element or free radical,*

*(c) any combination of elements of a particular molecular identity that occurs in nature or as a result of a chemical reaction, and*

*(d) complex combinations of different molecules that originate in nature or are the result of chemical reactions but that could not practicably be formed by simply combining individual constituents.*

**Section 122(1)** *“SHIP” includes a vessel, boat or craft designed, used or capable of being used solely or partly for marine navigation, without regard to its method or lack of propulsion, and includes an air cushion vehicle.*

**Section 122(1)** *“DISPOSAL” means*

- (a) the disposal of a substance at sea from a ship, an aircraft, a platform or another structure,*
- (b) the disposal of dredged material into the sea from any source not mentioned in paragraph (a),*
- (c) the storage on the seabed, in the subsoil of the seabed or on the ice in any area of the sea of a substance that comes from a ship, an aircraft, a platform or another structure,*
- (d) the deposit of a substance on the ice in an area of the sea,*
- (e) the disposal at sea of a ship or aircraft,*
- (f) the disposal or abandonment at sea of a platform or another structure, and*
- (g) any other act or omission that constitutes a disposal under regulations made under paragraph 135(3)(c),*

*But does not include*

- (h) a disposal of a substance that is incidental to or derived from the normal operations of a ship, an aircraft, a platform or another structure or of any equipment on a ship, an aircraft, a platform or another structure, other than the disposal of substances from a ship, an aircraft, a platform or another structure operated for the purpose of disposing of such substances at sea,*
- (i) the placement of a substance for a purpose other than its mere disposal if the placement is not contrary to the purposes of this Division and the aims of the Convention or the Protocol,*
- (j) the abandonment of any matter, such as a cable, pipeline or research device, placed on the seabed or in the subsoil of the seabed for a purpose other than its mere disposal, or*
- (k) a discharge or storage directly arising from, or directly related to, the exploration for, exploitation of and associated off-shore processing of seabed mineral resources.*

**Section 122(2) “SEA” means**

- (a) the territorial sea of Canada;*
- (b) the internal waters of Canada, excluding all the rivers, lakes and other fresh waters in Canada and the St. Lawrence River as far seaward as the straight lines drawn*
  - (i) from Cap-des-Rosiers to the western-most point of Anticosti Island, and*
  - (ii) from Anticosti Island to the north shore of the St. Lawrence River along the meridian of longitude sixty-three degrees west;*
- (c) any exclusive economic zone that may be created by Canada;*
- (d) the arctic waters within the meaning of section 2 of the Arctic Waters Pollution Prevention Act;*

*(e) an area of the sea adjacent to the areas referred to in paragraphs (a) to (d) that is specified under paragraph 135(1)(g);*

*(f) an area of the sea under the jurisdiction of a foreign state, other than its internal waters; and*

*(g) an area of the sea, other than the internal waters of a foreign state, not included in the areas of the sea referred to in paragraphs (a) to (f).*

**Section 125 (1)** *No person or ship shall dispose of a substance in an area of the sea referred to in any of paragraphs 122(2) (a) to (e) unless*

*(a) The substance is waste or other matter; and*

*(b) The disposal is done in accordance with a Canadian permit*