



EUROPEAN  
COMMISSION  
DIRECTORATE-  
GENERAL FOR  
HEALTH AND  
FOOD SAFETY

Crisis preparedness  
in food, animals  
and plants  
**Animal health**

**SUBMISSION OF ERADICATION PROGRAMMES FOR CATEGORY C DISEASES OF AQUATIC ANIMALS COVERING AN AREA SMALLER THAN 75% OF THE TERRITORY OF A MEMBER STATE, AND WHERE THE WATER CATCHMENT SUPPLYING THE ZONE OR COMPARTMENT IS NOT SHARED WITH ANOTHER**

**MEMBER STATE OR THIRD COUNTRY**

## **Template in accordance with Article 10 of Commission Implementing Regulation (EU) 2020/2002**

**1. Date of submission:** 05.07.2021

**2. Member State:** Norway

**3. Name of the disease:** infectious salmon anemia (ISA)

**4. Contact details:**

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**responsibility within the competent authority:** veterinary, senior adviser

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**5. Territorial scope**

10183 Barstadvik is a land-based broodfish farm located in Ørsta municipality, Møre og Romsdal County, Norway. The farm has served as a broodfish plant for Atlantic salmon since 2010. The site is owned and operated by the broodfish company AquaGen.

The compartment consists of a single closed farm unit independent of the animal health status of the surrounding natural waters, as it uses only groundwater from the gravel (wells) and has an operating UV disinfection filter of all intake water. The site will when fully developed be a full cycle broodfish and egg production facility that comprise four separate departments: a) juvenile fish department, b) department for on-growth, c) department for final maturation and stripping, and d) egg incubation department. Some of the departments are divided into sub-departments representing separate hygienic zones for different year classes.

## **6. Description of the epidemiological situation for the compartment**

10183 Barstadvik is a closed, land based single unit farm, independent of the health status of surrounding natural waters. The site is approved, and the health status of the fish by the start of the eradication program is regarded “unknown”.

The purpose of the broodfish and egg production facility 10183 Barstadvik is to produce eyed salmon and rainbow trout eggs to serve the market nationally and internationally.

The only species kept on the site will be Atlantic salmon and Rainbow trout. Both Atlantic salmon and Rainbow trout are presently stocked at the site. After the start of the eradication program, only fish or eggs from sites with granted ISA-free status will be allowed to enter the site.

Maps and ground plan of the site is presented in Annex 1.

## **7. Description of the disease control strategy of the eradication programme in accordance with Article 46 of Delegated Regulation (EU) 2020/689**

To establish zones and compartments with HPR-deleted ISAV-free status the Norwegian Food Safety Authority (NFSA) carries out at least six inspections annually for two years and take necessary samples (at least 2 x 75 fish annually) to be analyzed according to Commission delegating decision (EU) 2020/689.

### **-Health visits and sampling schemes**

The compartment will be placed under extended risk-based surveillance for two years, involving six official inspections annually and sampling of at least 2 x 75 fish annually. Sampling will be performed by the NFSA in connection with inspections. Results from the official surveillance program and any other sampling performed will be reported to NFSA and the National Reference Laboratory (Norwegian Veterinary Institute). When finalized, the results from the two-year surveillance period will be presented as part of an application for recognition of disease-free status of the compartment.

The sampling is risk based, and moribund and freshly dead fish are selected. Atlantic salmon are prioritized over rainbow trout and sampling will be performed so that all production units and water sources are covered.

In addition to the official eradication program, all fresh water and brood stock farms in Norway are obliged to be subject to a minimum of twelve health inspections by veterinarians or aqua medicine biologists (animal health professionals) annually. The Norwegian legislation also implies that acute mortalities must be followed up by inspections by animal health professionals. In case of suspected disease appropriate sampling and diagnostic investigation will be performed immediately. Official authorities will be informed of unexplained increased mortality and other reasons for suspicion of listed diseases with no delay. The legislation also states that every brood fish that dies the last 9 months ahead of and during the stripping period is obliged to autopsy by veterinarian, aqua medicine biologist or by educated, trained person on the site.

AquaGen has a contract with the independent fish health service Åkerblå that covers both routine and acute inspections at 10183 Barstadvik.

### **-Diagnostic methods**

All analyses will be performed by a laboratory accredited and designated for ISA-virus analysis. Sampling and analyses will be performed in line with the Commission delegating decision (EU) 2020/689. AquaGen has a contract with the independent laboratory company Patogen AS for these analyses.

### **-Disease control measures to be applied in the event of a confirmed case**

In case of suspicion of fish being infected with HPR-deleted ISA-virus, the site will immediately

be suspended. NFSA will within 3 days conduct an official investigation to confirm or rule out the presence of the disease. This inspection will involve an examination and sampling of minimum 10 fish.

ISA diagnostics will be done at The Norwegian Veterinary Institute (NRL) according to the methods outlined by the OIE.

If ISA is confirmed, NFSA will, in line with regulations stated in Commission delegating decision (EU) 2020/689, impose the control measures which are needed to eradicate the disease from the compartment and to prevent spread of the disease to other sites. NFSA will supervise the cleaning, disinfection and fallowing of the facility.

#### **-Biosecurity and risk mitigating measures**

The farm has been using groundwater since establishment in 1998. The saltwater wells have filters placed at about 20 – 50 m depth in the gravel. The freshwater wells have filters placed at about 8 – 15 m depth in the gravel.

The water pipes are totally closed on their way from the wells to the production site.

After aeration both the fresh and salt intake water is filtered through an UV disinfection filter. These systems provide an intensity of 120 mJ/cm<sup>2</sup>, giving good security for inactivation of ISA-virus. Necessary redundancy is established.

It is impossible for fish or other aquatic animals to enter the water source, water supply or the farm itself. The lowest part of the fish tanks is 2.3 meters above sea flood level. There is no possibility that sea water or fresh water from outside can reach the facility.

None of the departments at the site housing fish are accessible directly from the outside, and all movements of people, fish and equipment happen through designated rooms/areas. All ventilation air inlets have louvers that are especially designed to stop aerosols.

The site has strict procedures for handling of dead fish. Dead fish from the different departments are secured and transported to the designated dead fish rooms where the fish is grinded and ensiled. There is no cross-over between departments.

Handling of dead fish is done in accordance with:

- Regulation 2008-06-17-822 Regulations relating to Operation of Aquaculture Establishments, and
- Regulation 2016-09-14-1064 on animal by-products not intended for human consumption.

The site has internal hygienic procedures for the staff, visitors and equipment entering the compartment. There are dedicated changing areas for each hygienic department. When entering the fish departments protective clothing and boots/shoes shall be used and washing and disinfection of hands performed. Visitors cannot enter the production, but they will have view to the different departments through windows. Equipment introduced to the site/departments is cleaned and disinfected in designated areas before entering.

Health and welfare parameters such as mortality, and environmental indicators like temperature, pH and oxygen levels are monitored at the site. Temperature and oxygen levels are monitored continuously, mortality and pH are monitored once a day.

#### **-Vaccination schemes**

No vaccination for ISA-virus has been or will be performed at the site.

## **8. Description of the organization, supervision and roles of the parties involved**

### **-Competent Authority**

The competent authority organizing and surveying health control for aquaculture industry in Norway is the Norwegian Food Safety Authority (NFSA). NFSA has two administrative levels, the head office and five regional offices. These regional offices with 32 local offices throughout the country secure a close relation to both consumers and the relevant businesses. Officers from these local offices carry out practically all the active inspections.

Approval of aquaculture farms in Norway has been compulsory since 1985.

The NFSA supervise both the aquaculture farm, the aquatic animal health service and the laboratory involved in the surveillance program and coordinate the measures taken to fulfil the requirements to achieve disease free status.

### **-Responsibilities of stakeholders**

Anyone participating in aquaculture activities covered by Regulation 17 June 2008 No. 819 is obliged to have the necessary professional knowledge to perform those activities.

Personnel employed in aquaculture farming are obliged to keep daily records of the health status at the farm and to have the appropriate competence. The persons responsible for the daily operation of aquaculture establishments shall be educated in aquaculture business including knowledge about management, animal health and welfare.

Any signs consistent with suspicion or presence of a listed disease shall be notified to NFSA and the fish health service with no delay.

### **9.Duration of the eradication program**

Two years.

### **Annexes**

1. Maps and ground plan
2. Sampling 2017-2020