

## Inter-municipal Harbour Regulation

### 1. Object and Scope

- 1.1 The object of this Regulation is to reduce the disturbance of low-frequency engine noise from ships in harbours. Moreover, the object is to assign common rules regarding unnecessary noise and unnecessary fumes.
- 1.2 Port authorities must always ensure that docked ships and other shipping activities in harbours produce no unnecessary noise. Port authorities can order ships to reorganise, postpone or stop noisy activities. When a port authority stops an activity, orders expulsion of a ship or similar, the other port authorities must respect and adhere to the same assessment, unless underlying conditions have changed.
- 1.3 Port authorities can order ships to reorganise, postpone or stop activities and operations, which emit unnecessary fumes. If this is not sufficient to resolve the problem with fumes, and if a port authority has received complaints regarding fumes, then such complaints must be forward forthwith in a joint letter to the Faroese Maritime Authority, Faroese Environment Agency and/or other relevant authorities. Port authorities must notify the complainant of how the complaint regarding fumes has been handled.
- 1.4 This Regulation is a joint Regulation for municipal harbours. Municipal councils hereby empower the National Association of Municipalities – after consulting with the municipal port network and providing at least 14 days' notice – to make changes and adjustments to this Regulation and/or Appendix, however, said authorisation is always subsidiary to the powers of each individual municipal council.
- 1.5 This Regulation is based on structured noise measurements taken during a trial period in the summer and autumn of 2021. The Regulation was reviewed and amended in autumn of 2022 and entered into force on 1<sup>st</sup> February 2023. Any registered measurements, notices, orders and deadlines issued before 1<sup>st</sup> February 2023 remain in force. This Regulation will be reviewed with the Ministry of Environment, Industry and Trade no later than 31<sup>st</sup> January 2026.

### 2. Definitions

- 2.1 In this Regulation and Appendix, the following terms are defined as:
  - 2.1.1 *Municipal harbour*: a harbour owned or operated and by and under the authority of a municipality.
  - 2.1.2 *Port authority*: the municipal authority for each port(s), usually the harbourmaster in the relevant municipality.
  - 2.1.3 *Noise measurement*: the measurement of noise from ships, made in line with the Appendix of this Regulation.

2.1.4 *Engine noise*: noise from ship engines.

2.1.5 *Unnecessary noise*: this term should be broadly understood in relation to the services that are offered by the harbour and the work that most effectively happens alongside the quay. Work such as loudspeaker communications (rather than earphones/headsets), hammering rust or similar activities can be concrete examples of unnecessary noise – especially if the work happens during the night or on Sundays and holidays.

2.1.6 *Unnecessary fumes*: this term encompasses fumes from chimneys/exhausts, which is abundant, a blight and/or foul smelling. Fumes related to arrivals and departures are not encompassed by this concept.

2.1.7 *Low frequency noise*: Noise in the frequency range from 10Hz to 160 Hertz (Hz).

2.1.8 *LpAeq, LF (10-160 Hz)*: the A-weighted average noise level in the frequency range 10-160 Hz.

2.1.9 *Ambient noise*: Noise measured from all other sources than the ship in question, such as wind, waves, other operations, other ships, or equipment.

### 3. Threshold value

3.1 The low frequency engine noise of a ship moored at a quay for more than 2 hours should not exceed these threshold values:

<b>TABLE 1: Threshold value (single ship, 25 m from the ship's side)</b>	From 1 <sup>st</sup> January 2022	From 1 <sup>st</sup> July 2023	From 1 <sup>st</sup> January 2025
Hours 23-07	58 dB	56 dB	54 dB
Hours 07-23	60 dB	58 dB	56 dB

3.2 The combined low frequency engine noise from several ships moored alongside each other at the quay for more than 2 hours should not exceed these limits:

<b>TABLE 2: Threshold value (several adjacent ships, 25 m from the ship's side)</b>	From 1 <sup>st</sup> January 2022	From 1 <sup>st</sup> July 2023	From 1 <sup>st</sup> January 2025
Hours 23-07	60 dB	58 dB	56 Db

Hours 07-23	60 dB	60 dB	58 dB
-------------	-------	-------	-------

3.3 The threshold value is exceeded when the measured or calculated value, having removed elements of uncertainty (Appendix 1.11) and potentially corrected ambient noise levels (Appendix 1.12), is higher than the limit value.

3.4 With two or three adjacent ships, the combined engine noise must not exceed this threshold value (table 2). The combined noise is measured using recognised common templates (see Appendix 1.6).

3.5 Port authorities will not permit ships with a noise level higher than the limit value (Table 1) to berth. The port authority shall in such situations act according to a relevant registered measurement, if available, no matter which port authority, environmental authority or approved company carried out the noise measurement. At night port authorities must also always assess whether work can be postponed.

#### 4. Administration and inspection of limit values

4.1 Each port authority administers this Regulation in their municipal harbour and monitors that the threshold values are adhered to. Administration and inspections are carried out in the same way in all ports.

4.2 If a complaint is received about a ship's engine noise, the port authority will make a noise measurement in line with the Appendix of this Regulation. The port authority can also decide to make a measurement at their own initiative. The representatives of each relevant party, including individual residents, shipping companies, governing bodies and interest groups, may be present, on request, during the noise survey.

4.3 A noise measurement will not be needed if a port authority has already registered a relevant noise measurement from the ship within the same operating environment. Neither will a sound measurement be needed in cases where, for example, weather conditions make it impossible to capture the correct level of the noise subject to a complaint.

4.4 Ships have, on request, a duty to allow noise measurements to take place under the operating conditions, which are most relevant to the concrete port visit and can be expected to generate the highest level of noise during that harbour visit.

4.5 If there are indications that the engine noise differs from a previous measurement, the port authority should take another measurement that will become valid for the operating environment.

4.6 If engine noise measurements exceed the limit value, the port authority will consult with the ship, shipping company or relevant representative so that the situation can be rectified. In addition, the port authority immediately instructs the ship to alter operations so that noise levels are reduced most effectively, provided it is workable and technically achievable. If needed, the port authority can take

further steps to reduce the engine noise, for example interspace vessel by category, provide shoreside electrical power or reallocate individual vessels.

4.7 If for technical and/or operational reasons it is impossible for the ship to reduce its engine noise, the port authority must first give the ship notice to reduce the noise within a time limit or else ensure that the ship cannot return to a harbour covered by this Regulation after the deadline has lapsed, unless the ship can provide proof that they are keeping within the noise limit or will otherwise receive electrical power supply from shore that will reduce the noise from the ship substantially. The time limit can be up to 6 months, however, the deadline given cannot exceed the date when the relevant threshold value in 3.1 and/or 3.2 enters into force. Port authorities may under certain circumstances approve a longer deadline.

4.8 Ships that have undergone a noise survey and without giving notice to and receiving approval from the relevant port authority alter their operating conditions in a manner that leads to a higher level of noise can be instructed to leave port immediately and for a term of at least 6 months. Such instructions to leave port must be provided in writing, recorded in a joint registry and apply to all harbours subject to this regulation.

4.9 Vessels may be registered with several measurements and instructions, provided that they apply to different operating conditions. In case of any doubts port authorities are obliged to prioritise the highest recorded measurement.

4.10 A port authority can permit a ship to arrive in port to carry out a noise survey. If the ship arrives in port for a noise measurement, and the result shows that the limit value is still being exceeded, the port authority shall order the ship to leave the harbour once the measurement is completed. If difficult circumstances make it impossible to perform an accurate noise measurement in accordance with point 4.2, then the ship should be inspected next time it arrives in one of the ports covered by this Regulation.

4.11 Port authorities may, upon written application, derogate from the provisions in this Regulation. Derogations may only be granted to a named ship and can only be granted to ships, which provide regular freight and/or passenger transport to the Faroe Islands. The shipping company, or its representative, must in their application provide details regarding which concrete provisions they seek a derogation from, and the application must contain a sailing schedule for the ship's regular route. Port authorities must provide notification in writing to the inter-municipal harbour network regarding any applications, which they intend to approve. Any derogations granted must be as limited as possible, and it must be specified in writing to which harbours the derogation applies. All derogations are recorded in the port authorities' joint registry, and all derogations can be fully or partially withdrawn with a 3-month notice to the end of a calendar month.

4.12 The port authorities will establish a joint registry of vessel noise measurements, as well as any notices, instructions and deadlines issued to vessels. The Environment Agency will be given access to this registry.

## Appendix

### to the Inter-municipal Regulation of Noise from Ships

All noise measurements discussed in this Regulation of Noise from Ships will need to follow the procedures outlined in this Appendix.

#### 5. Method of investigation

1. The noise from ship engines will be measured in line with the standards of “DS/ISO 2922:2020: Acoustics – Measurements of airborne sound emitted by vessels on inland waterways and harbours”
2. In chapter 10.2 in the standard “LpAeq” is changed to “LpAeq, LF (10-160 Hz)”.
3. The noise survey should be carried out by an approved company, environmental agency or one of the port authorities where this regulation applies. The measuring equipment must fulfil the requirements of a Class 1 gauge according to the standards of IEC 61260-1 (Section 5.1).
4. A suitable windscreen should be used to mitigate wind noise. If the wind is estimated to make a signal that is less than 10 dB from the average noise level of the ship, a suitable windscreen must be used (Section 5.2).
5. The sound from the ship should be measured at 25 m ± 2 m distance from the ship’s side. Measurement should be taken from where the noise appears to be loudest. If it is unclear where most of the noise originates, the noise should be measured across different places around the ship, and note should be taken of the highest level of measurement (Section 9.4)
6. The noise from several ships is combined (logarithmically) to find the combined noise level from the ships as follows:

#### Sample calculation for three ships:

Source noise level at a distance of 25:

- Ship A: 55 dBA
- Ship B: 56 dBA
- Ship C: 59 dBA

$$\text{Combined noise} = 10 * \log_{10}(10^{\exp(A/10)} + 10^{\exp(B/10)} + 10^{\exp(C/10)})$$

$$= 10 * \log_{10}(10^{\exp(55/10)} + 10^{\exp(56/10)} + 10^{\exp(59/10)}) = 61.8 \text{ dBA}$$

7. If the distance  $d$  between the microphone and ship deviates from the reference point of 25 meters, the measurement must be adjusted in line with this formula (Section 10.1.4):  $LpAeq,25m = LpAeq,d + 20 \cdot \log_{10} [d/25] \text{ dB}$
8. The time of measurement should be at least 30 seconds for each measurement (Section 10.2).
9. Within 30 m distance from the microphone there should be no sound reflective barriers, such as buildings or the like (Section 6.2.2). If conditions make this impossible, a measurement can be made that registers the place and assesses whether it counts as a “+3 dB measurement”. If classified as a “+3 dB measurement”, the measured level is lowered by 3dB.
10. Wind speed above 7 m/s can interfere with noise distribution, therefore measurements should not be made under such conditions (Section 6.3.1). Moreover, measurements should not be made when it rains or snows (Section 6.3.2.).
11. The measurement uncertainty is 3.4 dB. (Section 11, formula 6 and table 2)
12. Ambient noise from the surrounding environment, including waves, other ships, local operations, and other engines, should be substantially lower – that is at least 6 dB lower than the noise level. The same applies to individual frequencies when a frequency analysis is made. In most cases, it is impossible to measure ambient noise separately when the ship is in harbour. In such cases, one should instead assess the level of the ambient noise. If the difference between the ambient noise and engine noise is estimated to be too low (less than 6dB, that is  $\frac{1}{4}$ ), the measuring of the engine noise cannot proceed. If the ambient noise can be measured, it should be measured for 5 minutes and be adjusted for noise in accordance with the table below (Section 6.4.2.2.).

Difference between measured noise and ambient noise	Adjusted P-value
$\geq 11$	0
10	-0.5
9	-0.6
8	-0.7
7	-1.0
6	-1.3