



Action plan 2016 on efficient enforcement of regulations on ships' sulphur emissions

Update of the authorities' action plan from 2014 made on the basis of the experiences gained so far with enforcement in the first year since the regulations entered into force.

Background

On 1 January 2015, new stricter requirements for ships' emission of sulphur took effect in the so-called SECAs. Now, ships must use low sulphur fuel (0.1 per cent) or meet the requirements otherwise, for example by cleaning the exhaust gas by means of a so-called "scrubber".

Efficient and homogeneous enforcement of the regulations in all SECA countries is a condition for the regulations to have the desired impact in practice and for ensuring a level playing field. This has led to a considerable pressure on the authorities to secure robust enforcement with strict sanctions for infringements.

Status of the efforts made by the authorities

In June 2014, the Danish Maritime Authority and the Environmental Protection Agency – in dialogue with the Danish Shipowners' Association – launched an action plan to ensure efficient enforcement. Since then, more or less all the initiatives have been effected, including the following:

- The number of oil samples taken by the Danish Maritime Authority on behalf of the Environmental Protection Agency has been doubled to 150 annually in 2015 and 2016.
- An international awareness campaign has been launched in all SECA countries, where ships received written material on the new regulations and how to comply with them.
- An international authority workshop has been held by the Danish Maritime Authority, which has ensured knowledge sharing as well as more efficient international enforcement coordination.
- A special EU database has been established for improved focusing of the enforcement efforts (THETIS-S).
- New EU regulation has entered into force, which ensures homogeneous enforcement of the sulphur regulations in the EU and homogeneous reporting to the EU Commission.
- A project for surveillance of ships' emissions in Danish waters from the Great Belt Bridge and by means of small planes has been launched by the Environmental Protection Agency in July 2015. The project will run until the end of 2016.

In practice, preliminary data¹ from mid-2015 in the EU SECA areas indicate a compliance rate of approx. 94 per cent. Only in Danish waters, the compliance rate is presumably higher, which is indicated by the results from the Environmental Protection Agency's surveillance of Danish waters. So far, sniffer measurements indicate a non-compliance rate of approx. 2 per cent.

However, enhanced action is still needed to ensure efficient enforcement in all SECA countries. Enforcement in the waters of other countries is of as much importance to the competitiveness of Danish shipping – and to the environmental impact – as are the national efforts made.

In addition, there is a need for strategic efforts as regards global enforcement from 2020, or possibly from 2025, when an upper limit for the sulphur content of ships' fuel of 0.5 per cent will be introduced.

National efforts are focused on optimizing the enforcement activities, both in terms of impact and resource consumption. In 2016, the national efforts will be evaluated in order to plan and finance the control until 2020.

¹ Data extracted from the inspection database THETIS-S by the European Maritime Safety Agency (EMSA) in July 2015.

Updated action plan

Just as was the case with the action plan from June 2014, it is possible to divide the focus areas in the years to come into four groups, constituting the main focus areas within which the Danish Maritime Authority and the Environmental Protection Agency are working.

1 – International cooperation

The international efforts made are based upon the results from a number of meetings held between the authorities of the SECA countries in 2014 and 2015 and, consequently, upon the global efforts made in the context of the IMO.

- **European Sustainable Shipping Forum (ESSF) and the implementation committee for the sulphur directive**

In order to ensure a level playing field and secure the environmental impact of the sulphur regulations, it is necessary to ensure balanced guidelines on enforcement, also as regards port State and flag State control procedures, the use of surveillance from the air, scrubber certification and inspection, regulations on experiments with alternative technologies on ships for compliance with the regulations, etc. Denmark works actively in the ESSF and in the implementation committee to achieve these goals.

- **Harmonised control guidelines**

Homogeneous control procedures will both ensure a high minimum standard of efficient enforcement and make it easier for global shipping to handle the meeting with the controlling authorities in various countries. Therefore, the SECA countries are considering the drafting of a common proposal for IMO guidelines.

- **Knowledge sharing and dialogue with the authorities in other countries**

Enforcement is a global challenge and, therefore, it is important to continue to develop the authority network and to share the experiences gained with specific enforcement in the SECA countries. The Danish Maritime Authority and the Environmental Protection Agency take part in the international SECA authority workshops that are being planned on an ongoing basis as a follow-up to the Danish initiative taken in February 2015.

- **Strategic efforts to ensure global enforcement after 2020/2025**

In the near future, the geographical and territorial areas in which stricter sulphur regulations apply will be extended considerably. This will involve new enforcement challenges, in terms of both surveillance and jurisdiction and therefore strategic efforts are needed to ensure global enforcement. The Environmental Protection Agency and the Danish Maritime Authority will examine the possibilities of strategic cooperation with the EU and like-minded IMO countries and shipowners' associations on the development of IMO instruments for global enforcement in 2020/2025. This may have the form of a big data solution and/or – in the longer term – on-board monitoring.

2 – New technology

A number of technologies have been developed that can be used for enforcement strengthening, either by means of improved control in ports or by means of surveillance in the high seas.

- **Surveillance in Danish waters**

In Denmark and abroad, port State control and enforcement as such can be made more efficient through the use of surveillance data. During the last part of 2015, the Environmental Protection Agency have received so-called "sniffer data" that have been collected from ships in the Great Belt and the Sound. These data provide new knowledge on the compliance rate, which can contribute to the arrangement of future control efforts as well as to the focusing of port State control inspections in both Denmark and other SECA countries. Firstly, this is to be achieved through the inclu-

sion of clear infringements in THETIS-S. Finally, the experience gained is to be used to evaluate whether the regulations have the expected environmental impact.

- **Surveillance using drones**

Several SECA countries are experimenting with the use of drones for surveillance of shipping from the air so that the control is not only made in the ports. It is expected that the Environmental Protection Agency will – together with the Netherland authorities – take part in a Horizon 2020 project where a Danish company further develops its technology for the surveillance of ships' SO_x and NO_x emissions by means of low-cost sensors placed in drones and helicopters. Furthermore, the Environmental Protection Agency and the Danish Maritime Authority are striving to ensure that the future amendments of the national and EU regulations on drone operation support drone surveillance of ships.

- **On-board measuring equipment and voluntary reporting**

In connection with the EU supported EfficienSea2 project, a business model and technology description will be developed for a scheme where ships voluntarily submit sulphur data from on-board measuring equipment and can, in this manner, acquire special treatment with fewer and/or less comprehensive controls in port. The experiences gained in this connection will be transferred to the above-mentioned initiative (under item 1) on strategic efforts to ensure global enforcement from 2020/2025.

3 – Data sharing and focusing the control

In February 2015, the SECA authority workshop pointed to the exchange of data between the countries' authorities as the most important cooperation initiative that is decisive for efficient control across the borders.

- **Data exchange with all SECA countries**

In order to unleash the full potential of the common inspection database THETIS-S, the Danish Maritime Authority will strive to include Canada, Russia and the USA in the THETIS-S cooperation. In the longer term, all countries should ideally share inspection data when the stricter sulphur emission limits enter into force in 2020/2025.

- **More functions in THETIS-S**

THETIS-S can potentially ensure better and more resource efficient control activities. Therefore, the system must be developed further so that it can, for example, automatically receive "sniffer data", be used for the extraction of statistics and automatically identify risk ships for inspection on the basis of data from previous inspections.

- **Homogeneous sanctioning levels**

Each SECA country establishes its own type of sanctions and size of fines, but convergence should be sought for, both to promote the use of sufficiently robust sanctions and to increase the transparency for the industry. In practice, the first step is to collect and share data on the sanctions imposed in the various countries in order to create a common basis for future sanctioning policies and legal practice. In the longer term, this work will – as regards the EU – be taken over by the Commission since, from late 2016, the number and size of sanctions are to be reported by the EU countries.

4 – Policies, procedures and sanctions in Denmark

A number of authorities and, not least, the courts will be involved if infringements of the regulations are detected in Danish waters. Therefore, it is decisive that efficient and resource saving procedures are in place from the initial inspection until a trial, if relevant.

- **Cross-ministerial task force**

In order to optimize enforcement in Danish waters, a focused dialogue must be ensured between the authorities involved. Furthermore, on the basis of the initial experiences gained with the control activities, legal issues must be clarified and possible proposals for solutions must be drawn up as regards the prosecution and sanctioning of ships infringing the regulations. For this purpose, the Environmental Protection Agency has in late 2015 established a cross-ministerial task force, consisting initially of the Environmental Protection Agency and the Danish Maritime Authority with participation by the Public Prosecutor and the Defence Command Denmark on an ad hoc basis.

- **Investment support**

Several of the methods that can be used to comply with the sulphur regulations require investments in new on-board technology. The Danish Maritime Authority and the Danish Shipowners' Association will therefore host a seminar focusing on whether it is possible to develop a financing instrument in cooperation with the European Investment Bank that will ensure investment capital for the shipowners, which would reduce the incentive not to comply.

- **Focus on fuel suppliers**

Ships are dependent on the sulphur content in the fuel corresponding to that stated in the bunker delivery note. Therefore, the Environmental Protection Agency will circulate information to all Danish fuel suppliers and, on that occasion, stress their obligations when supplying fuels. In addition, the Environmental Protection Agency will have special focus on Danish suppliers about whom "notes of protest" are received from ships on a too high sulphur content. Finally, strategic work must be made so that the industry uses market mechanisms – as a supplement to the efforts made by the authorities – to further "self-regulation" of the bunkers industry.

- **Danish inspection after 2016**

In 2016, the Environmental Protection Agency and the Danish Maritime Authority will evaluate the Danish 2015-2016 inspection. The evaluation is to form the basis of a recommendation on the planning and financing of the inspection until 2020, including especially on a continuation of the surveillance from the air of ships' sulphur emissions (the sniffer project) and the financing hereof.

