

# Order no. 939 of 27 November 1992 on the protection of submarine cables and submarine pipelines

(the Cable Order)

Pursuant to Section 5(4) and Section 6(3) of the Act on Safety of Navigation, cf. Consolidated Act no. 587 of 29 September 1988, and by authority given in Order no. 570 of 26 September 1988, the following provisions are laid down after consultation with the Danish Ministry of Defence and the Danish Ministry of Transport, cf. Act no. 54 of 15 February 1895 on the protection of submarine cables and submarine pipelines, as amended by Act no. 134 of 10 May 1915, Act no. 151 of 10 May 1967 and Act no. 480 of 8 November 1972:

**Section 1.** Ships may not, without urgent necessity, anchor in the cable and pipeline fields laid down for submarine cables and submarine pipelines of any type (pipelines for the carriage of hydrocarbons, etc.), which cover the associated protective zones, cf. Section 4.

*Subsection 2.* In the protective zones, suction dredging, fishing for stones as well as any use of tools and other gear that are dragged on the seabed shall be prohibited. Before poles are placed in the seabed in these areas, the placing of the poles shall be negotiated with the owner of the cables or pipelines or with his or hers local representative.

*Subsection 3.* Dumping in protective zones around cables and pipelines or in areas where spoil material could drift above cables or pipelines, including especially outfall and intake construction, shall have been approved by the owner of the cables or the pipelines beforehand. The approval shall be evident from the permit to carry out dumping operations.

**Section 2.** If, in a situation of urgent necessity as mentioned in Section 1(1), a ship has anchored in protective zones around cables and pipelines, the following shall be observed:

- 1) The master of the ship shall immediately inform the Admiral Danish Fleet of the anchoring. Attempts may not be made to lift the anchor until the owner of the cable or pipeline has permitted this. Such a permit may be obtained through the Admiral Danish Fleet, which will inform the owner of the cable or the pipeline and the authorities hereof, see item 3 in the annex.
- 2) Before the ship is weighing anchor, the master shall, insofar as possible, obtain information about the position of the anchor in relation to the cables or pipelines. The weighing of the anchor shall be made in consideration of the necessary precautions and in accordance with the terms and conditions laid down in the permit; if the anchor is not clear of the cable or pipeline, it may not be weighed unless the master is certain, under the conditions prevailing, including the depth of water, conditions of currents and wind, the design of the anchor, etc., that it could come clear without damaging the cable or pipeline. If the master is not certain of this, the anchor shall, provided that the consideration of the ship's safety so permits, be slackened after having been marked by means of a buoy or the like.
- 3) In the case of a fracture or any other damage of the cable or pipeline, or when a cable has been caught during fishing operations, the position where this took place shall be determined as accurately as possible, if necessary by means of bearings, and the position shall be marked by means of a buoy or the like.
- 4) According to the circumstances, the master may subsequently be required to give a more detailed explanation of the events.

*Subsection 2.* As regards submarine cables and submarine pipelines, see the annex.

**Section 3.** The rules prescribed in Section 2 shall apply by analogy in case a ship has used tools and other gear that may damage the cables or the pipelines in the protective zones for cables or pipelines despite the prohibition mentioned in Section 1.

**Section 4.** A cable or pipeline field covers a 200 metre wide protective zone along and on each side of the cable or the pipeline such as this field has been marked in the charts, respectively the beacon line for the cable or the pipeline unless expressly provided otherwise in each individual case, for example in the Danish “Notices for Mariners” – “Efterretninger for Søfarende”. Rather large cable or pipeline fields will, in general, be indicated by means of beacon lines for the uttermost cables or pipelines of the field and, now and then, also for beacon lines for cables or pipelines between these. If nothing else has been announced and marked in the charts, the protective zone of the cable and pipeline field covers the area between the uttermost beacon lines as well as an area of 200 metres outside these.

*Subsection 2.* The cable and pipeline fields have been marked in Danish, Faroese and Greenland charts and mentioned in the associated navigation descriptions under the relevant waters. The laying down of new cable or pipeline fields as well as changes made to the existing ones shall be published in the Danish “Notices for Mariners” – “Efterretninger for Søfarende” – and in the Danish “chart corrections” – “Søkortrettelser”.

*Subsection 3.* In the charts, cables and pipelines are shown as either single ones or as areas in which more than one cable or pipeline has been laid. In the latter case, the total extension of the cable and pipeline field will be shown in the charts. Protective zones around single cables and pipelines are marked in the charts only as the alignment of the cable or the pipeline.

*Subsection 4.* The provisions of this Order shall not apply within the sea area of a port, but cables and pipelines as well as provisions on local conditions are found in “The Danish Port Pilot” – “Den Danske Havnelods”, “Port information on the Faroe Islands” – “Havneoplysninger for Færøerne” as well as “The Greenland Port Pilot” – “Den Grønlandske Havnelods”.

**Subsection 5.** The prohibition against anchoring, etc. in protective zones around cables and pipelines shall not apply to ships that carry out surveying, marking and cable works and the like for a relevant authority and ships used by the relevant owner of the cables or pipelines for such works within the field. Such ships shall not be obliged to render information about anchoring, cf. Section 2(4).

*Subsection 2.* The prohibition mentioned in Section 1 shall not cover seabed mooring of navigation marks.

**Subsection 6.** The Danish General Directorate for Postal and Telegraphical Services, the Danish Energy Authority and the other owners of cables and pipelines shall inspect whether the provisions of this Order are complied with.

**Subsection 7.** Contraventions of this Order shall be punishable by fine.

**Subsection 8.** This Order shall enter into force on 1 January 1993.

*Subsection 2.* Order no. 327 of 29 October 1962 on the protection of submarine cables and submarine pipelines shall be repealed.

*The Danish Maritime Authority, 27 November 1992*

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## **Annex**

### **Submarine cables and submarine pipelines**

#### **1 General**

##### *Submarine cables*

Contact with any kind of submarine cables may be lethal, no matter whether they are cables for the supply of electricity (electricity cables) or telephone cables (tele cables).

The most important parts of a submarine cable are protected by solid steel-wire armouring. The armouring is covered by either yarn impregnated with a tar-like substance or by a hard plastic sleeve.

The thickness of the cables differs widely, the thinnest ones having a diameter of about 3 cm (weight of about 3 tonnes per km) and the thickest ones having a diameter of about 15 cm (weight of about 50 tonnes per km).

As regards cables, they are often damaged on the inside if they are bended sharply or are flattened though the cable seems to be intact on the outside.

It may be dangerous to cut over a submarine cable. Electricity cables and many tele cables transfer voltages that may be lethal if treated in the wrong way. A great part of the tele cables are optical-fibre cables where a laser diode is used as the source of light. The light from the laser may be harmful to the eye retina if it is exposed to a strong laser beam.

All ships should do their utmost to avoid touching submarine cables since damage to them may lead to disturbances of installations of great importance to society and, furthermore, involve great repair expenses. Persons who cause damage to submarine cables shall be criminally liable and possibly liable to pay damages according to the circumstances.

As stipulated in Section 4(2) of the Order, the cable fields in Danish, Faroese and Greenland waters as well as the associated marking are shown in the charts and are mentioned in the associated navigation descriptions.

A few cables in narrow reaches and shallow waters have not been shown in the charts or marked by means of cable beacons. In such cases, the landing of the cable will be marked by a cable sign with an explanatory text. The cable sign will have been marked in the charts.

##### *Pipelines*

Submarine oil and gas pipelines may be lethal if damaged. In general, oil and gas pipelines have been buried and covered, but in a few places at supports they may have been placed above the seabed. A few pipelines have, however, been laid on the seabed without subsequently being buried.

Rather large pipelines (diameter of more than 250 mm) are normally surrounded by a concrete sleeve to make it sufficiently heavy and, hence, secure it against lifting. The operational pressure in the pipelines may be of up to 140 bar. Consequently, damage could lead to the discharge of great quantities of gas and oil, which may pose an explosive risk and mean that ships lose their buoyancy and that the environment is polluted. At the same time, damage of the pipeline would cause disturbances of installations of great importance to society.

Hence, all ships should do their utmost to avoid touching submarine pipelines. Persons who cause damage to pipelines shall be criminally liable and possibly liable to pay damages according to the circumstances.

## **2 Marking of submarine cables and submarine pipelines**

In general, cable fields have been marked by means of cable beacons that normally include a front and a rear beacon located ashore. Beacon lines with two rear beacons with a joint front beacon or with two front beacons with a joint rear beacon are found.

In narrow reaches, a pipeline may have been marked by means of beacons.

The beacons mentioned may have been provided with a light.

Together, the front and rear beacon indicate – unless expressly provided otherwise, cf. Section 4 of the Order or if it is evident from the charts – the centreline of the field.

### *Cable beacons*

In a beacon line, the front beacon consists of a circular grating surface and the rear beacon of a similar circular surface above a square surface (diamond). The circular surfaces have been painted white with a red centre, while the square surface has been painted white with a red border. If a cable light is used, the rear beacon is fitted with a red light over a white light and the front beacon with a red light.

### *Pipeline beacons*

In beacon lines marking pipelines, the rear beacon and the front beacon are fitted with a square surface (diamond). The beacons have been painted yellow. If the beacons have been fitted with a light, a yellow light is used on both beacons.

### *Warning signals*

In order to warn vessels that will probably, during anchoring or fishing operation, come so close to a submarine cable or a submarine pipeline that there might be a risk of damage, guard ships nearby may, if necessary, hoist the flag signal QU to indicate that anchoring is prohibited.

The signals found in the International Regulations for Preventing Collisions at Sea for ships engaged in the laying or taking up of a submarine cable shall also count as warnings.

In certain areas, special cable buoys or cable light buoys that are yellow and marked with the word “Cable” as well as the owner’s name or mark can have been laid in the cable line. Such buoys may not be touched.

There may be submarine valve installations in connection with pipelines extending over the seabed. The installations can have been marked by means of a navigation mark (single marking of a danger).

### **3 Ships that have run aground or anchored in a cable or pipeline field**

Ships that have run aground, anchored or whose gear has snagged in a cable or pipeline field shall immediately inform the Admiral Danish Fleet hereof, which will subsequently establish contact with the owner of the cable or pipeline. Then, the owner will contact the ship immediately in order to cooperate in avoiding damage to the cable or pipeline. For this purpose, it is of the utmost importance that the position of both the anchor and the ship is given as accurately as possible.

### **4 Compensation for lost gear**

A ship is entitled to compensation for anchors or fishing gear that have been sacrificed in order not to damage a submarine cable or a submarine pipeline, cf. Act no. 54 of 15 February 1895, as amended by Act no. 134 of 10 May 1915, Act no. 151 of 10 May 1967 as well as Act no. 480 of 8 November 1972. The master of the ship shall report his claim to the relevant person within 24 hours after his arrival in the ship's first port of call.

In foreign port, information about the person to whom the claim is to be made may be sought from the Danish representation.

Any claim for compensation shall always be accompanied by a transcript from the ship's logbook about the circumstances of the incident as well as a record of the type of gear lost, including a copy of the bill for their purchase. The claim for compensation should be made immediately after the incident and be signed by the master and by a crew member who witnessed the incident. Hence, the master shall present proper proof of the legitimacy of the claim.