

July 1982

TO ALL MEMBERS

The Britannia Steam Ship
Insurance Association Limited

Direct Reduced Iron

We refer to our circulars of September 1980 and August 1981. The carriage of direct reduced iron was considered again in January this year at the 23rd session of the IMCO (now International Maritime Organization) Sub-Committee on Containers and Cargoes to which the undersigned Associations presented a paper. A working group set up at that session recommended certain amendments to the entry for direct reduced iron in the IMO Bulk Cargo Code and its recommendations have subsequently been ratified by the IMO Maritime Safety Committee.

The amendments concern only direct reduced iron pellets, lumps and cold moulded briquettes and no amendment has been made to the entry for hot moulded briquettes, the second category mentioned in our circular of August 1981.

The IMO amendments to the entry for direct reduced iron pellets, lumps and cold moulded briquettes relate mainly to the 'Shippers' Requirements' which now reads as follows:

- 'A Shipper should provide necessary specific instructions for carriage, either:
- 1 Maintenance throughout the voyage of cargo holds under an inert atmosphere containing less than 5% oxygen. The hydrogen content of the atmosphere should be maintained at less than 1% by volume; or
 - 2 That the DRI has been manufactured or treated with an oxidation and corrosion inhibiting process which has been proved to the satisfaction of the Competent Authority, to provide effective protection against dangerous reaction with sea water or air under shipping conditions.
- B The provisions of paragraph A may be waived or varied if agreed by the Competent Authorities of the countries concerned taking into account the sheltered nature, length, duration or any other applicable conditions of any specific voyage.'

In relation to paragraph A (2), the major manufacturers in Germany have used a chemical 'passivation' process to inhibit oxidation/corrosion. However, there has recently been a serious fire on board a ship carrying this product and there must be serious doubts about whether such a passivation process renders the cargo safe for carriage by sea.

The undersigned Associations continue to believe that the only proven method of carrying this cargo safely is by maintaining the cargo holds in an inert atmosphere and believe that the most effective method of providing an inert atmosphere is by injecting the inert gas at the bottom of the stow in order to force out the air within the stow; therefore, the detailed advice to shipowners and Masters on pages 2 and 3 of the circular of August 1981 stands.

p.t.o.

On present information, it is not thought that the length or nature of the voyage contemplated (IMO paragraph B) can ever justify the waiver of the requirement of maintaining the cargo in an inert atmosphere.

While the undersigned Associations continue to work closely with the major manufacturers and international bodies to reach agreement for the further amendment of the regulations, Members are again advised to ensure that the terms of their Charter Parties permit the carriage of direct reduced iron pellets, lumps and cold moulded briquettes in accordance with the recommendation that the cargo should always be carried in an inert atmosphere whatever the nature or length of the voyage contemplated.

For the guidance of Members, we set out below a list of those countries now known to be exporting direct reduced iron:

Country	Product	Comments
Canada	Pellets	Shipped in inert CO ² atmosphere.
Indonesia	Pellets	Shipped under inert CO ² atmosphere.
Mexico	Pellets	Shipped under inert CO ² atmosphere.

(NB It should be noted that shippers in Indonesia and Mexico inject CO² into the hold over the top of the cargo. It is not considered that this is as effective a method as that used by the shippers in Canada who inject the CO² at the bottom of the stow in order to force out the air within the stow.)

Germany	Pellets	Passivated but recently serious fire broke out in a cargo of the passivated product.
Trinidad	Pellets	Neither passivated nor inerted.
Nigeria	Pellets	Manufacturing plant not yet operating but believed that pellets will be neither passivated nor inerted.
Venezuela	Briquettes	See category 2 of our circular of August 1981.