

Carefully to Carry

APRIL 2010

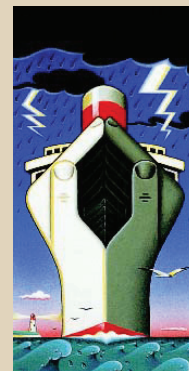
The carriage of genetically modified crops into Europe

Guidelines on the main issues in carrying cargoes that may contain genetically modified organisms

These basic guidelines have been prepared following a recent incident in Denmark, where a Member had a full cargo of soya beans (declared as non-GM) rejected for containing genetically modified material. The information that follows is not intended as legal advice or opinion. A more detailed report on the subject, together with useful sources of information, can be found on the Carefully to Carry part of the Club's Loss Prevention website by following the link at the end of this document.

Description and characteristics

The term GMO or genetically modified organisms refers to any organism whose genetic makeup has been altered using genetic engineering. In the instance of marine cargoes they are usually plant crops that have characteristics that are different from those of conventional crops which have been developed through traditional plant breeding techniques. GMO crops are not readily detectable from others through a visual inspection.



“The carrier shall properly and carefully load, handle, stow, carry, keep, care for and discharge the goods carried.”

Hague Rules,
Articles iii, Rule 2

Carefully to Carry Advisory Committee

This report was produced by the Carefully to Carry Committee – the UK P&I Club's advisory committee on cargo matters. The aim of the Carefully to Carry Committee is to reduce claims through contemporaneous advice to the Club's Members through the most efficient means available.

The committee was established in 1961 and has produced many articles on cargoes that cause claims and other cargo related issues such as hold washing, cargo securing, and ventilation.

The quality of advice given has established Carefully to Carry as a key source of guidance for shipowners and ships' officers. In addition, the articles have frequently been the source of expertise in negotiations over the settlement of claims and have also been relied on in court hearings.

In 2002 all articles were revised and published in book form as well as on disk. All articles are also available to Members on the Club website. Visit the Carefully to Carry section in the Loss Prevention area of the Club website www.ukpandi.com for more information, or contact the Loss Prevention Department.

Hazard

Genetically modified crops present no greater hazard during shipping other than that already identified for their conventional counterparts. Similarly, the loading, precautions during carriage, ventilation and discharge operations of GM crops does not differ from that of conventional crops.



Carriage of GM crops

- Cargoes of soybean, maize, oilseed rape and cotton, loaded in USA, Argentina, Brazil and Canada come with an increased likelihood of being genetically modified. It is therefore recommended that analysis of those specific cargoes, from the above mentioned locations, is carried out prior to loading. The GM or non-GM nature of the cargo should be certified based on the analysis carried out.
- The carriage of GM crops should be clearly stated on the bill of lading and the following or of a similar meaning declaration should be included: *"This shipment 'may contain' living modified organisms intended for direct use as food or feed, or for processing, that are not intended for intentional introduction into the environment."*
- GM crops destined for an EU country should be included on the list of authorised GMOs issued by the European Union: http://ec.europa.eu/food/dyna/gm_register/index_en.cfm
- EU Member countries accept only previously authorised GM crops.
- The International Grain Trade Coalition (IGTC) recommends that the commercial invoice contains the contact information of the last exporter prior to the transboundary movement and the first importer after such movement.

Carriage of non-GM crops with low level presence (LLP) of adventitious/chance contaminants

In the case of conventional cargoes that are found to contain low levels of chance contaminants of GM origin, the fate of the cargo depends on the nature of the GM contaminant, and the sampling and testing procedures that are conducted.

Sampling

Correct sampling is crucial and good sampling techniques are designed to minimise the error involved with sampling. GM contaminations in large shipments are not necessarily random and any sampling methods used should take this into account. Currently there are two appropriate testing guidelines and these are:

- 1 European recommendation 2004/787/EC. This also specifies the ISO method that should be used for the collection of the material as shown in Table 1.
- 2 Draft European standard prCEN/TS 21568:2005.

Table 1. ISO methods used for the collection of material for the detection of GMOs

Commodity to be sampled	ISO method to be used
Free flowing commodities	6644/13690
Oilseeds	542
Pre-packaged food and feed products	2859
Material larger than grains (e.g. potatoes, fruits, rhizomes)	2859



Material for testing should be collected in intermittent sampling periods which can be calculated by dividing the estimated total off-loading time by the total number

of increments. Table 2 shows the recommended number of increments which varies according to the lot size.

Table 2. Size of bulk samples (kg) and number of increments to be collected for testing for GMOs in cargoes

Lot size in tonnes	Size of bulk sample in kg	Number of increments
≤50	5	10
100	10	20
250	25	50
≥500	50	100

Testing

It is recommended that any qualitative and quantitative tests of GMO that are carried out at the port of loading follow the protocols set out by the national reference laboratory of the destination European country. In this way, the danger of variable results due to laboratory discrepancies is minimised. A list of national reference

laboratories which can carry out analyses of GM material and work under the auspices of the European Central Reference Laboratory (CRL) can be found in the following list:

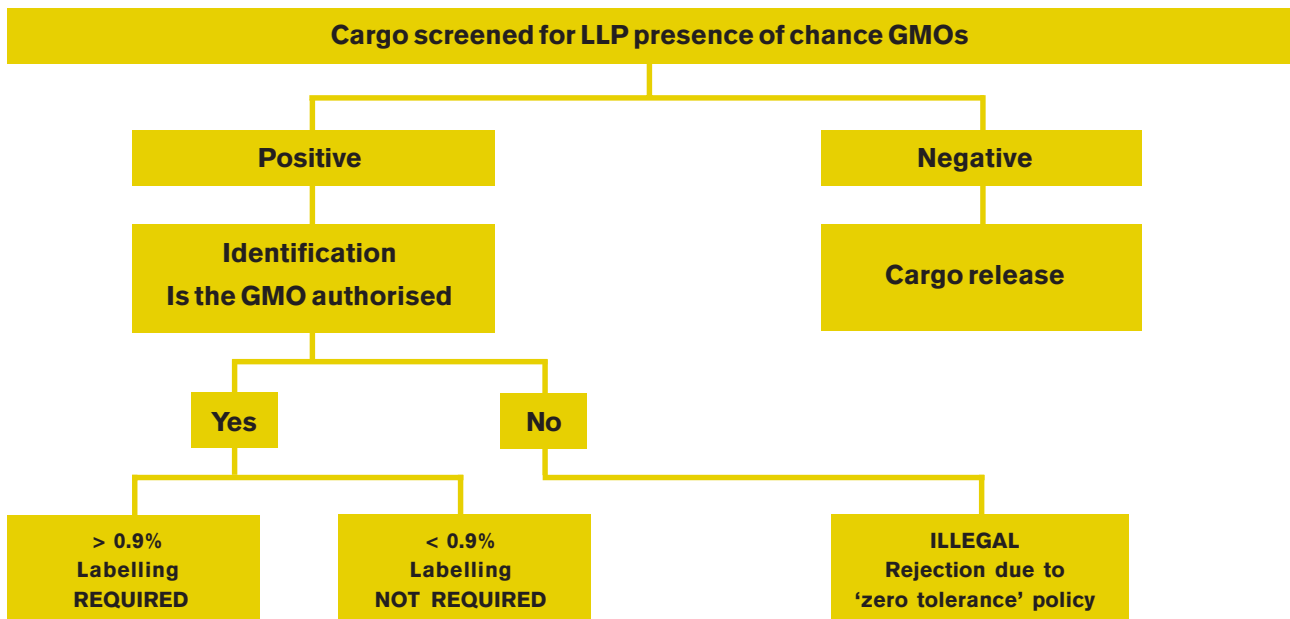
http://ec.europa.eu/food/food/biotechnology/gmo_reference_lab_en.htm

The analytical steps of cargo testing for the low level presence of GM material are shown in Figure 1.

Following a negative result of the screened material, the cargo will be released; however, a positive test to GM material will prompt further investigation for the identification of the exact GMO. If the identified GMO has been authorised to be used as food or feed in the European country of discharge, a quantitative test will be required to determine the level of contamination.

The maximum permitted amount of GMO in the cargo is 0.9% above which the cargo will be labelled as GM cargo. If the GMO has not been previously authorised under EU regulations then the cargo will be deemed illegal and it will be rejected no matter what the level of contamination is (zero threshold).

Figure 1. Cargo testing for the low level presence of GM material



To link to the full text document 'Advice on the importation of genetically modified material in Europe as this is specified by the current legal frameworks' and for a list of selected sources of information, please visit http://www.ukpandi.com/ukpandi/infopool.nsf/HTML/LP_Init_Care2Carry