

## ***Food Safety and Transportation***

### **Carrier responsibilities under the rules and regulations of the CIFA and FDA**

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#### **Carrier responsibilities in Canada – CFIA rules and regulations**

During the receiving, loading and transportation of food, there may be exposure to various hazards (e.g. biological: improper temperature control, chemical: transported with pest control products, physical: poor trailer conditions resulting in foreign material, etc.). To ensure the safe handling and preservation of food during transportation the SFCR (Safe Food for Canadians Regulations) has defined various rules and regulations that apply to carriers. These rules are defined in the SFCR under Part 4 – Preventive Controls, under Division 4 – Maintenance and Operation of Establishment, under Subdivision E – Unloading, Loading and Storing (Section 72 and 74). The carrier rules and responsibilities listed under the SFCR are enforced by the CFIA (Canadian Food Inspection Agency).

Under the SFCR, carriers are not required to maintain a regulatory license to transport food, however, they must comply with the following requirements:

#### **1. Design and construction of transport vehicles (conveyances)**

All transport vehicles must be designed and constructed to prevent the contamination of the food they carry. This means they are designed from suitable materials (with no defects or damages) that are durable, capable of withstanding repeated cleaning and sanitizing and are free of any noxious constituent. To ensure no contamination of food by the transportation carriers, it is important that transport carriers are made of materials that are not affected or altered by the food or its packaging being carried. The transportation carrier must also be fully capable of protecting the food from contamination by the external environment. In the case of bulk tankers, the transport carrier must be designed and constructed to meet all requirements above and also must permit complete and full drainage of the material being transported.

Materials that would typically be avoided while designing a transport carrier include (but are not limited to):

- Materials with porous surfaces, such as wood and cast iron (because they are difficult to clean and may harbour biological pathogens)
- Galvanized material to handle acidic foods (because the acid may react with the zinc coating to form salts that can be absorbed by the human body)
- Use of lead-based paints (because they could leach lead into the food)

## **2. Maintenance of transport carriers (conveyances)**

It is the carriers responsibility to ensure the transport carrier used has been maintained in adequate conditions that will prevent contamination of the food being carried. At the time of loading and unloading, the transport carrier must be visually clean, in good condition and have no evidence of pest infestation. If a transport carrier arrives in poor condition, manufacturers/operators may refuse to load or unload the food. The manufacturers/operators may also request additional information about the previous conditions of the transport carrier, for example, information about what previous material or items were carried in the transport carrier. Other information that may be requested from the manufacturer/operator includes proof of cleaning (this may include a cleaning certificate, wash ticket or letter of guarantee prior to loading or unloading) and whether or not the conveyance was previously used to transport live animals.

During repair and maintenance of transport carriers, the transport carrier must be repaired using parts recommended by the manufacturer – and all repairs must be conducted by a competent individual.

## **3. Temperature control**

All transport carriers must be capable of maintaining the temperate and humidity levels that are appropriate for the food they carry. If temperature control is required – the transport carrier must be capable of maintaining refrigerated food at temperatures between 0°C and 4°C, and frozen food at -18°C or less.

To ensure appropriate temperature and humidity control has been maintained, the transport carrier must be equipped with instruments that control, indicate and record the temperature and humidity levels.

## **4. Transportation restrictions**

In Canada, the following restrictions have been set in place to ensure the safe transport of food:

- Transport carriers must not transport food products with animals
- Transport carriers must not transport food with pest control products (which are defined in subsection 2(1) of the pest control products act) or any other material or substance that presents a risk of cross-contamination

## **5. Storage**

To ensure that the storage of transport carriers do not present a risk to products that will potentially be carried, all transport carriers must be stored in a clean and sanitary condition. The storage conditions should be monitored and any concerns identified (such as poor sanitary condition – build-up of debris/dust) must be corrected.

### **Carrier responsibilities in the USA – FDA rules and regulations**

Similar to the SFCR in Canada, in the USA, the Federal Registrar has defined carrier responsibilities and regulations for receiving, loading and transportation of food to ensure the food does not become subject to a biological, chemical or physical hazard. In the USA, carrier responsibilities are defined under Title 21 CFR (Code of Federal Regulations) Subpart O – Sanitary Transport of Human and Animal Food. Carrier responsibilities are enforced in the USA by the FDA (Food and Drug Administration).

The following rules and regulations apply:

#### **1. §1.906 – Requirements that apply to transport carriers and transportation equipment**

It is the carriers responsibility to ensure that all transport carriers and equipment are designed using materials and workmanship that are adequately cleanable for their intended use and can be maintained in a clean and sanitary condition which prevents the food they transport from becoming unsafe during transportation. Transport carriers must also ensure that all carriers and equipment are being stored in a

manner that prevents harbouring pests or becoming contaminated which could lead to the subsequent contamination of food when used.

If the transport carriers or equipment used for food requires temperature control for safety, the transport carrier must be designed, maintained and equipped as necessary to provide adequate temperature control to prevent food from becoming unsafe. If temperature control is required – the transport carrier must be capable of maintaining refrigerated food at temperatures between 0°C and 4°C, and frozen food at -18°C or less.

## **2. §1.908 – Requirements that apply to transportation operations (carriers)**

It is the carrier's responsibility to ensure that all operations are conducted under conditions and control necessary to prevent food from becoming unsafe during transport. The carrier must appoint competent supervisory personnel to ensure compliance is met, and must ensure the following conditions are satisfied:

- The carrier takes effective measures such as segregation, isolation or the use of packaging to protect food from contamination by raw foods and non-food items in the same load
- The carrier takes effective measure to ensure the food maintains adequate temperature control. If the carrier becomes aware of a possible failure of temperate control or any other conditions that may make the food unsafe, the food shall not be sold or otherwise distributed unless a determination is made by a qualified individual who can ensure the food remains safe
- The carrier takes effective measures to protect food transported in bulk vehicles or food not completely enclosed by a container from contamination and cross contact

## **3. §1.908 – Requirements that apply to transportation operations (carriers)**

When a carrier and shipper have a written agreement that the carrier is responsible in whole or in part for the sanitary conditions during the transportation, the carrier is responsible for the following:

- The carrier must ensure adequate temperature conditions are maintained and consistent

- Before offering a vehicle or transportation equipment with an auxiliary refrigeration unit, the carrier must pre-cool each mechanically refrigerated cold storage compartment as specified by the shipper
- If requested by the shipper, a carrier that offers bulk vehicles for food transportation must provide information to the shipper that identifies the previous cargo transported in the vehicle as well as information about the most recent cleaning
- A carrier must develop and implement written procedures that:
  - o Specify practices for cleaning, sanitizing if necessary and inspecting vehicles and transportation equipment that the carrier provides for use in transportation of food to maintain the necessary sanitation conditions
  - o Describes how they will comply with the temperature control requirements
  - o Describes how they will comply with the bulk vehicle requirements

#### **4. §1.910 – Training**

Carriers must train their staff in the rules and regulations set forth by FDA, as described above. They must also establish and maintain records documenting the training. Records must include the date, type of training and identification of person who was trained.

#### **5. §1.912 - Records**

Carriers must retain records of the written procedures and other records required for a period of 12 months beyond when the agreements and procedures were used and they must make all records required available to a duly authorized individual promptly upon oral or written requests.

All records required must be kept as original records, true copies (such as photocopies, pictures, scanned copies, microfilm, or other accurate reproductions of the original records), or electronic records and offsite storage of records is permitted provided the records can be accessed within 24 hours of a review.

**Summary**

Food Manufacturer Responsibilities	Carrier Responsibilities – Canada	Carrier Responsibilities – USA
<ul style="list-style-type: none"> <li>- Must ensure the transport carriers used is appropriate for its use and does not present a risk of contamination to the food</li> <li>- May request evidence that the transport carrier is appropriate and will not present a risk of contamination to the food</li> <li>- Compliance with regulations</li> </ul>	<ul style="list-style-type: none"> <li>- Must ensure appropriate design, construction and maintenance of transport carriers</li> <li>- Adequate temperature control is followed</li> <li>- Stored in a clean and sanitary manner with no pest harbourage</li> <li>- Compliance with SFCR section 72 and 74</li> </ul>	<ul style="list-style-type: none"> <li>- Must ensure appropriate design, construction and maintenance of transport carriers</li> <li>- Adequate temperature control is followed</li> <li>- Stored in a clean and sanitary manner with no pest harbourage</li> <li>- Training of personnel on sanitary requirements and food safety controls (such as temperature controls) are required</li> <li>- The carrier must develop procedures and records</li> <li>- Original records must be maintained and retrievable</li> <li>- Compliance with the US-FSMA - Subpart O – Sanitary Transportation of Human and Animal Food</li> </ul>

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**Definitions:**

**Biological hazard:** Any illness-causing pathogen, micro-organism, pest or vector that poses a danger to human health

**Bulk vehicle:** A tank truck, hopper truck, rail tank car, hopper car, cargo tank, portable tank, freight container or hopper bin or any other vehicle in which food is shipped in bulk, with the food coming into direct contact with the vehicle

**Carrier:** A person who physically moves food by rail or motor vehicle in commerce

**CFIA:** Canadian Food Inspection Agency

**Chemical hazard:** A chemical substance, including allergens, that poses a danger to human health

**FDA:** US Food and Drug Administration

**Hazard:** A biological, chemical or physical agent that has the potential to cause illness or injury to humans when present

**Operator:** the manufacturer of the product transported by a conveyance

**Pest:** Any objectionable animals or insects including birds, rodents, flies and larvae

**Physical hazard:** A physical substance that poses a danger to human health, such as wood slivers, needles, glass fragments, metal shavings and shell fragments, among others

**Preventative Control:** Refers to a combination of measures to achieve compliance with regulatory requirements that forms a system focused on prevention to control risks to food and to food animal welfare during slaughter activities

**Receiver:** Any person who receives food at a point after transportation, whether or not that person represents the final point of receipt for food

**SFCR:** Safe Foods for Canadians Regulations

**SFCA:** Safe Foods for Canadians Act

**Shipper:** A person (e.g. the manufacturer or freight broker) who arranges the transportation of food by a carrier, or multiple carriers sequentially

*By Gwynne Sitsker For Lumar Food Safety Services Ltd.*

*Jan 2020*