



FOOD SAFETY AND TEMPERATURE-CONTROLLED TRANSPORTATION

Poison control centers receive thousands of calls about suspected food poisoning each year. As the holiday seasons approach, it can be especially risky as people head to the grocery stores to prepare special meals for their loved ones. Although 14% of North American citizens get food poisoning each year, let's face it... we all, as consumers, purchase our food with the assumption that what we prepare is not going to lead to illness and death.



The FDA finalized seven major rules to implement the FSMA. The rules translate the act into specific actions at each point in the global supply chain to reduce contamination and make it easier to implement the changes. Those seven rules are:

1. **Preventive Controls for Human Food** – Human food facilities registered with the FDA must implement a written plan that identifies hazards and outlines appropriate preventive controls

- 2. **Preventive Controls for Animal Food** Animal food facilities registered with the FDA must implement a written plan that identifies hazards and outlines appropriate preventive controls
- 3. **Produce Safety** Establishes minimum standards for growing, harvesting, packing, and storing produce
- 4. **Foreign Supplier Verification Program** Importers must verify that their global suppliers comply with FDA regulations
- 5. Third-Party Certification Accredits third-party certification bodies to administer voluntary consultative and regulatory audits to help companies prepare for regulatory audits or achieve certifications
- 6. **Food Defense (intentional adulteration) –** Food facilities registered with the FDA must develop a plan that assesses contamination vulnerabilities and document a mitigation strategy for each vulnerability
- 7. **Sanitary Transportation** New requirements for companies that transport food, including shippers, receivers, loaders, and carriers

FSMA and the Sanitary Transportation of Human and Animal Food



FSMA rules only apply to foods regulated by the FDA. Granted, this is a significant chunk of the U.S. food supply, about 75%. The other 25% is regulated by other agencies, such as the United States Department of Agriculture (USDA), which oversees meat, poultry, and many dairy products. So, if you manufacture meat, poultry, or dairy products regulated by the USDA or another agency, then the FSMA does not apply to you.

What is covered by the FSMA are commercial farms, packing operations, and food processing facilities. Basically, if you have to register with the FDA as a food manufacturing facility, then the odds are extremely high that you need to comply with the FSMA. That being said, there are some exemptions made for facilities that don't fit the FDA's definitions for these categories or that don't meet certain thresholds for sales and ownership percentages; check the FSMA if you're not sure whether or not you qualify. Food transportation would be required to establish written procedures, subject to record-keeping requirements, for cleaning and inspecting their vehicles and transportation equipment.

Key Requirements of the Regulation

- **Vehicles and transportation equipment**: The design and maintenance of vehicles and transportation equipment to ensure that it does not cause the food that it transports to become unsafe. For example, they must be suitable and adequately cleanable for their intended use and capable of maintaining temperatures necessary for the safe transport of food.
- **Transportation operations**: The measures taken during transportation to ensure food safety, such as adequate temperature controls, preventing contamination of ready to eat food from touching raw food, protection of food from contamination by non-food items in the same load or previous load, and protection of food from cross-contact, i.e., the unintentional incorporation of a food allergen.
- **Training**: Training of carrier personnel in sanitary transportation practices and documentation of the training. This training is required when the carrier and shipper agree that the carrier is responsible for sanitary conditions during transport.
- **Records**: Maintenance of records of written procedures, agreements, and training (required of carriers). The required retention time for these records depends upon the type of record and when the covered activity occurred but does not exceed 12 months.

How to Manage Risk with the Transport of Human and Animal Food





Proper packaging is essential. Packaging should be crush-proof, have solid sides for frozen products and vented sides for fresh products.

- 2. Pre-cool and store cargo at the desired temperature to remove heat. Confirm product is at the desired temperature before loading. Refrigeration units are designed to maintained temperature, not change it.
- 3. Run reefer unit 20 minutes in "high speed cool." To remove residual trailer/body heat. Perform an automatic "pre-trip" to confirm the proper unit operation. Unit MUST pass the test.
- 4. Set the unit controller to the desired temperature. Verify the setting after changing it to confirm that it is correct.
- 5. Verify the correct mode of operation. Frozen products are typically transported in auto-stop-start (Cycle-Sentry) to conserve fuel. But this setting can reduce the shelf life or ruin an entire load of produce like fresh fruits and vegetables. For these products, it is recommended to operate the unit in "Continuous Run."

- 6. Pre-cool trailer/truck body. Operate the unit to the desired temperature to remove residual heat.
- 7. Turn unit "OFF" while loading. To minimize heat & humidity entering the trailer/truck body and verify the product is at the proper temperature.
- 8. Load product quickly and efficiently. Provide adequate air circulation around and through the entire load.
- 9. Close the doors and start the unit. Re-confirm Continuous Run or Auto-start- stop operating modes and temperature setpoint are correct. When compartment temperature is below 40°F, initiate a defrost cycle. This will help clear the evaporator coil and ensure maximum cooling performance.
- 10. Strip curtains. Are always recommended in the distribution of the temperature-controlled product. Keeping conditioned air in and outside air out.
- 11. Door openings. Minimize the number of door openings and their duration. Ambient air migrates in, and trailer/body air migrates out.
- 12. Proper airflow is CRITICAL. Poor air distribution causes product deterioration, even with adequate unit capacity. Obstructions cause poor airflow and product hot spots. Proper air circulation is allowed unobstructed paths on all 6 sides of a load.



Four Key Factors of Suitable Airflow

- 1. Use three-way block pallets to help provide adequate airflow. Do not obstruct the floor under the cargo. It prevents air from returning to the unit. Slip sheets and had stacking are not optimal for temperature management.
- 2. Inside of the trailer/body must be clean to prevent contamination and blocked airflow:
- T-floor must be free of obstructions
- Debris can block air circulation
- Debris can be pulled into the unit, resulting in insufficient cooling
- Use loading patterns that provide adequate airspace.
- 3. Exercise caution! Provide adequate space between the top of the cargo and the ceiling. Products should be loaded evenly to avoid airflow restrictions.
- 4. Do not block the unit evaporator air inlet (return air). Do not load product tight against the unit, walls, or doors.



How to Ensure a Clean Temperature-Controlled Compartment

At the end of each day, select an area free of environmental concerns for cleaning the inside of the trailer/truck body. Start by opening the doors of the refrigerated compartment and removing any items that should not get wet. Sweep out debris or blow out the compartment with an air hose after carefully clearing any and all debris (paper, plastic wrap) from the compartment and inspecting the evaporator housing to remove any debris.

When needed...

- 1. Prepare a bucket of food-grade detergent and water.
- 2. Scrub all interior surfaces with a clean cloth and detergent/water mix.
- 3. Use a water hose to spray the inside compartment. Make sure to spray the ceiling and walls as well as the floor. Give special attention to cracks, crevices, and areas near door openings and pockets. All cleaning should follow a "top first, bottom last" approach.
- 4. Allow the inside compartment to air dry.
- 5. Shut doors and/or take other steps, as necessary, to keep your vehicle clean. Always ensure no debris is left in the compartment at the end of your day.
- 6. When dirty, wash the outside of the truck.

24/7 ROADSIDE ASSISTANCE CALL 1-800-435-3273

IDEALEASE, INC.

430 North Rand Road, North Barrington, IL 60010 | **847-304-6000** |