

Food Security Preventive Measures Guidance in Food Industry: 1. For Food Producers, Processors, and Transporters

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Summary

The U.S. Food and Drug Administration announced the availability of guidance documents designed to help food manufacturers minimize the risk of tampering or other malicious, criminal or terrorist actions (on March 19, 2003). Two of the guidances are revised, final documents, and one is a proposed guidance. Two are revised, final guidance documents; one addresses food producers, processors, and transporters; the other addresses importers and filers. The other one document is draft guidance; it addresses retail food stores and food service establishments. These guidance documents are not regulations and are not mandatory. This guidance documents may be a sample documents for the food industry in Turkey, too.

Özet

A.B.D.Gıda ve İlaç İdaresi, kanuna aykırı bir şeyin değiştirilmesi veya kötü niyetli, kriminal veya terör hareketleri riskini gıda üreticilerinin en azda tutabilmelerini sağlayacak şekilde düzenlenmiş, yol gösterici dökümanların varlığını duyurmuştur (19 Mart 2003). Bunlardan ikisi düzeltmeleri yapılmış, hazır dökümanlardır, üçüncüsü ise son düzeltme aşamasındadır. İlk iki döküman gıda üreticileri, işleyicileri ve taşıyıcılarına, sonuncusu ise perakende satış depolarına ve gıda servisi yapan kurumlara dönüktür. Bu dökümanlar, yönetmelik değildir ve zorunlu değildir. Bu yol gösterici dökümanlar, Türkiye'deki gıda sanayi için de örnek dökümanlar olarak kabul edilebilir.

Introduction

Biological and chemical attacks would most likely be spread through the contamination of food or pharmaceutical products and producers need to understand the devastating consequences of not protecting themselves. If terrorists were able to gain access to processing plant and contaminate even one batch of a product the result would be catastrophic. Even if no one was harmed, the contamination would destroy consumers' faith in that product resulting in the probable destruction of the brand and potentially the company. This guidance for food producers, processors, and transporters represents the Agency's current thinking on the kinds of measures that food establishments may take to minimize the risk that food under their control will be subject to tampering or other malicious, criminal, or terrorist actions. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public.

Purpose and Scope:

This guidance is designed as an aid to operators of food establishments (firms that produce, process, store, repack, relabel, distribute, or transport food or food ingredients). This is a very diverse set of establishments, which includes both very large and very small entities.

This guidance identifies the kinds of preventive measures operators of food establishments may take to minimize the risk that food under their control will be subject to tampering or other malicious, criminal, or terrorist actions. It is relevant to all sectors of the food system, including farms, aquaculture facilities, fishing vessels, producers, transportation operations, processing facilities, packing facilities, and warehouses. It is not intended as guidance for retail food stores or food service establishments.

Operators of food establishments are encouraged to review their current procedures and controls in light of the potential for tampering or other malicious, criminal, or terrorist actions and make appropriate improvements. FDA recommends that the review include consideration of the role that unit and distribution packaging might have in a food security program. This guidance is designed to focus operator's attention sequentially on each segment of the farm-to-table system that is within their control, to minimize the risk of tampering or other malicious, criminal, or terrorist action at each segment. To be successful, implementing enhanced preventive measures requires the commitment of management and staff. Accordingly, FDA recommends that both management and staff participate in the development and review of such measures.

Limitations:

Not all of the guidance contained in this document may be appropriate or practical for every food establishment, particularly smaller facilities and distributors. FDA recommends that operators review the guidance in each section that relates to a component of their operation, and assess which preventive measures are suitable. Example approaches are provided for many of the preventive measures listed in this document. These examples should not be regarded as minimum standards. Nor should the examples provided be considered an inclusive list of all potential approaches to achieving the goal of the preventive measure. FDA recommends that operators consider the goal of the preventive measure, assess whether the goal is relevant to their operation, and, if it is, design an approach that is both efficient and effective to accomplish the goal under their conditions of operation.

Structure:

This guidance is divided into five sections that relate to individual components of a food establishment operation: management; human element - staff; human element - public; facility; and operations.

Related Guidance:

FDA has published a companion guidance document on food security entitled, "Importers and filers: Food security preventive measures guidance" to cover the farm-to-table spectrum of food production.

Additional Resources:

A process called Operational Risk Management (ORM) may help prioritize the preventive measures that are most likely to have the greatest impact on reducing the risk of tampering or other malicious, criminal, or terrorist actions against food. Information on ORM is available in the Federal Aviation Administration (FAA) System Safety Handbook, U.S. Department of Transportation, FAA, December 30, 2000, Chapter 15, Operational Risk Management. The handbook is available at:

http://www.asy.faa.gov/Risk/SSHandbook/Chap15_1200.PDF

The U.S. Department of Transportation, Research and Special Programs Administration has published an advisory notice of voluntary measures to enhance the security of hazardous materials shipments. It is available at:

[Http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002_register&docid=02-3636-filed.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002_register&docid=02-3636-filed.pdf)

The notice provides guidance to shippers and carriers on personnel, facility and en route security issues.

The U.S. Postal Service has prepared guidance for identifying and handling suspicious mail. It is available at <http://www.usps.com/news/2001/press/mailsecurity/postcard.htm>.

The Federal Anti-Tampering Act (18 USC 1365) makes it a federal crime to tamper with or taint a consumer product, or to attempt, threaten or conspire to tamper with or taint a consumer product, or make a false statement about having tampered with or tainted a consumer product. Conviction can lead to penalties of up to \$100,000 in fines and up to life imprisonment. The Act is available at:

<http://www.fda.gov/opacom/laws/fedatact.htm>.

The National Infrastructure Protection Center (NIPC) serves as the federal government's focal point for threat assessment, warning, investigation, and response for threats or attacks against U.S. critical infrastructure. The NIPC has identified the food system as one of the eight critical infrastructures, and has established a public-private partnership with the food industry, called the Food Industry Information and Analysis Center (Food Industry ISAC). The NIPC provides the Food Industry ISAC with access, information and analysis, enabling the food industry to report, identify, and reduce its vulnerabilities to malicious attacks, and to recover from such attacks as quickly as possible. In particular, the NIPC identifies credible threats and crafts specific warning messages

to the food industry. Further information is available at <http://www.nipc.gov/> and <http://www.foodisac.org/>.

Finally, some trade associations have developed food security guidance that is appropriately focused for that specific industry. For example, the International Dairy Food Association has developed a food security guidance document as an aid to the dairy industry.

FDA encourages other trade associations to evaluate the preventive measures contained in this FDA guidance document and adapt them to their specific products and operations and to supplement this guidance with additional preventive measures when appropriate. FDA welcomes dialogue on the content of sector specific guidance with appropriate trade associations.

Food Establishment Operations:**Management**

FDA recommends that food establishment operators consider:

- ✍ Preparing for the possibility of tampering or other malicious, criminal, or terrorist actions
- ✍ Assigning responsibility for security to knowledgeable individual(s)
- ✍ Conducting an initial assessment of food security procedures and operations, which we recommend be kept confidential
- ✍ Having a security management strategy to prepare for and respond to tampering and other malicious, criminal, or terrorist actions, both threats and actual events, including identifying, segregating and securing affected product
- ✍ Planning for emergency evacuation, including preventing security breaches during evacuation
- ✍ Maintaining any floor or flow plan in a secure, off-site location
- ✍ Becoming familiar with the emergency response system in the community
- ✍ Making management aware of 24-hour contact information for local, state, and federal police / fire / rescue / health / homeland security agencies
- ✍ Making staff aware of who in management they should alert about potential security problems (24-hour contacts)
- ✍ Promoting food security awareness to encourage all staff to be alert to any signs of tampering or other malicious, criminal, or terrorist actions or areas that may be vulnerable to such actions, and reporting any findings to identified management (for example, providing training, instituting a system of rewards, building security into job performance standards)
- ✍ Having an internal communication system to inform and update staff about relevant security issues
- ✍ Having a strategy for communicating with the public (for example, identifying a media spokesperson, preparing generic press statements and background information, and coordinating press statements with appropriate authorities)

Supervision

- ✎ providing an appropriate level of supervision to all staff, including cleaning and maintenance staff, contract workers, data entry and computer support staff, and especially, new staff
- ✎ conducting routine security checks of the premises, including automated manufacturing lines, utilities and critical computer data systems (at a frequency appropriate to the operation) for signs of tampering or malicious, criminal, or terrorist actions or areas that may be vulnerable to such actions

Recall strategy

- ✎ identifying the person responsible, and a backup person
- ✎ providing for proper handling and disposition of recalled product
- ✎ identifying customer contacts, addresses and phone numbers

Investigation of suspicious activity

- ✎ investigating threats or information about signs of tampering or other malicious, criminal, or terrorist actions
- ✎ alerting appropriate law enforcement and public health authorities about any threats of or suspected tampering or other malicious, criminal, or terrorist actions

Evaluation program

- ✎ evaluating the lessons learned from past tampering or other malicious, criminal, or terrorist actions and threats
- ✎ reviewing and verifying, at least annually, the effectiveness of the security management program (for example, using knowledgeable in-house or third party staff to conduct tampering or other malicious, criminal, or terrorist action exercises and mock recalls and to challenge computer security systems), revising the program accordingly, and keeping this information confidential
- ✎ performing random food security inspections of all appropriate areas of the facility (including receiving and warehousing, where applicable) using knowledgeable in-house or third party staff, and keeping this information confidential
- ✎ verifying that security contractors are doing an appropriate job, when applicable

Human element - staff

Under Federal law, food establishment operators are required to verify the employment eligibility of all new hires, in accordance with the requirements of the Immigration and Nationality Act, by completing the INS Employment Eligibility Verification Form (INS Form I-9). Completion of Form I-9 for new hires is required by 8 USC 1324a and nondiscrimination provisions governing the verification process are set forth at 8 USC 1324b.

FDA recommends that food establishment operators consider:

Screening (pre-hiring, at hiring, post-hiring)

✎ examining the background of all staff (including seasonal, temporary, contract, and volunteer staff, whether hired directly or through a recruitment firm) as appropriate to their position, considering candidates' access to sensitive areas of the facility and the degree to which they will be supervised and other relevant factors (for example, obtaining and verifying work references, addresses, and phone numbers, participating in one of the pilot programs managed by the Immigration and Naturalization Service and the Social Security Administration [These programs provide electronic confirmation of employment eligibility for newly hired employees. For more information call the INS SAVE Program toll free at 1-888-464-4218, fax a request for information to (202) 514-9981, or write to US/INS, SAVE Program, 425 I Street, NW, ULLICO-4th Floor, Washington, DC 20536. These pilot programs may not be available in all states], having a criminal background check performed by local law enforcement or by a contract service provider [Remember to first consult any state or local laws that may apply to the performance of such checks])

Note: screening procedures should be applied equally to all staff, regardless of race, national origin, religion, and citizenship or immigration status.

Daily work assignments

- ✎ knowing who is and who should be on premises, and where they should be located, for each shift
- ✎ keeping information updated

Identification

- ✎ establishing a system of positive identification and recognition that is appropriate to the nature of the workforce (for example, issuing uniforms, name tags, or photo identification badges with individual control numbers, color coded by area of authorized access), when appropriate
- ✎ collecting the uniforms, name tag, or identification badge when a staff member is no longer associated with the establishment

Restricted access

- ✎ identifying staff that require unlimited access to all areas of the facility
- ✎ reassessing levels of access for all staff periodically
- ✎ limiting access so staff enter only those areas necessary for their job functions and only during appropriate work hours (for example, using key cards or keyed or cipher locks for entry to sensitive areas, color coded uniforms [remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes])

changing combinations, rekeying locks and/or collecting the retired key card when a staff member who is in possession of these is no longer associated with the establishment, and additionally as needed to maintain security

Personal items

restricting the type of personal items allowed in establishment

allowing in the establishment only those personal use medicines that are necessary for the health of staff and ensuring that these personal use medicines are properly labeled and stored away from food handling or storage areas

preventing staff from bringing personal items (for example, lunch containers, purses) into food handling or storage areas

providing for regular inspection of contents of staff lockers (for example, providing metal mesh lockers, company issued locks), bags, packages, and vehicles when on company property (Remember to first consult any federal, state, or local laws that may relate to such inspections)

Training in food security procedures

incorporating food security awareness, including information on how to prevent, detect, and respond to tampering or other malicious, criminal, or terrorist actions or threats, into training programs for staff, including seasonal, temporary, contract, and volunteer staff

providing periodic reminders of the importance of security procedures (for example, scheduling meetings, providing brochures or payroll stuffers)

encouraging staff support (for example, involving staff in food security planning and the food security awareness program, demonstrating the importance of security procedures to the staff)

Unusual behavior

watching for unusual or suspicious behavior by staff (for example, staff who, without an identifiable purpose, stay unusually late after the end of their shift, arrive unusually early, access files/information/areas of the facility outside of the areas of their responsibility; remove documents from the facility; ask questions on sensitive subjects; bring cameras to work)

Staff health

being alert for atypical staff health conditions that staff may voluntarily report and absences that could be an early indicator of tampering or other malicious, criminal, or terrorist actions (for example, an unusual number of staff who work in the same part of the facility reporting similar symptoms within a short time frame), and reporting such conditions to local health authorities

Human element -- public

FDA recommends that food establishment operators consider:

Visitors (for example, contractors, supplier representatives, delivery drivers, customers, couriers, pest control representatives, third-party auditors, regulators, reporters, tours)

inspecting incoming and outgoing vehicles, packages and briefcases for suspicious, inappropriate or unusual items or activity, to the extent practical

restricting entry to the establishment (for example, checking visitors in and out at security or reception, requiring proof of identity, issuing visitors badges that are collected upon departure, accompanying visitors)

ensuring that there is a valid reason for the visit before providing access to the facility - beware of unsolicited visitors

verifying the identity of unknown visitors

restricting access to food handling and storage areas (for example, accompanying visitors, unless they are otherwise specifically authorized)

restricting access to locker room

Facility

FDA recommends that food establishment operators consider:

Physical security

protecting perimeter access with fencing or other deterrent, when appropriate

securing doors (including freight loading doors, when not in use and not being monitored, and emergency exits), windows, roof openings/hatches, vent openings, ventilation systems, utility rooms, ice manufacturing and storage rooms, loft areas, trailer bodies, tanker trucks, railcars, and bulk storage tanks for liquids, solids, and compressed gases, to the extent possible (for example, using locks, "jimmy plates," seals, alarms, intrusion detection sensors, guards, monitored video surveillance [remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes])

using metal or metal-clad exterior doors to the extent possible when the facility is not in operation, except where visibility from public thoroughfares is an intended deterrent (remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes)

minimizing the number of entrances to restricted areas (remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes)

securing bulk unloading equipment (for example, augers, pipes, conveyor belts,

- ✎ monitoring the security of the premises using appropriate methods (for example, using security patrols [uniformed and/or plain-clothed], video surveillance)
- ✎ minimizing, to the extent practical, places that can be used to temporarily hide intentional contaminants (for example, minimizing nooks and crannies, false ceilings)
- ✎ providing adequate interior and exterior lighting, including emergency lighting, where appropriate, to facilitate detection of suspicious or unusual activities
- ✎ implementing a system of controlling vehicles authorized to park on the premises (for example, using placards, decals, key cards, keyed or cipher locks, issuing passes for specific areas and times to visitors' vehicles)
- ✎ keeping parking areas separated from entrances to food storage and processing areas and utilities, where practical

✎ Laboratory safety

- ✎ restricting access to the laboratory (for example, using key cards or keyed or cipher locks [remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes])
- ✎ restricting laboratory materials to the laboratory, except as needed for sampling or other appropriate activities
- ✎ restricting access (for example, using locks, seals, alarms, key cards, keyed or cipher locks) to sensitive materials (for example, reagents and bacterial, drug, and toxin positive controls)
- ✎ assigning responsibility for integrity of positive controls to a qualified individual
- ✎ knowing what reagents and positive controls should be on the premises and keeping track of them
- ✎ investigating missing reagents or positive controls or other irregularities outside a normal range of variability immediately, and alerting appropriate law enforcement and public health authorities about unresolved problems, when appropriate
- ✎ disposing of unneeded reagents and positive controls in a manner that minimizes the risk that they can be used as a contaminant

✎ Storage and use of poisonous and toxic chemicals (for example, cleaning and sanitizing agents, pesticides)

- ✎ limiting poisonous and toxic chemicals in the establishment to those that are required for the operation and maintenance of the facility and those that are being held for sale
- ✎ storing poisonous and toxic chemicals as far away from food handling and storage areas as practical
- ✎ limiting access to and securing storage areas for poisonous and toxic chemicals that are not being held for sale (for example, using keyed or cipher locks, key cards, seals, alarms, intrusion detection sensors, guards, monitored video

surveillance [remember to consult any relevant federal, state or local fire codes that may apply before making any changes])

- ✎ ensuring that poisonous and toxic chemicals are properly labeled
- ✎ using pesticides in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (for example, maintaining rodent bait that is in use in covered, tamper-resistant bait stations)
- ✎ knowing what poisonous and toxic chemicals should be on the premises and keeping track of them
- ✎ investigating missing stock or other irregularities outside a normal range of variation and alerting appropriate law enforcement and public health authorities about unresolved problems, when appropriate

Operations

FDA recommends that food establishment operators consider:

✎ Incoming materials and contract operations:

- ✎ using only known, appropriately licensed or permitted (where applicable) contract manufacturing and packaging operators and sources for all incoming materials, including ingredients, compressed gas, packaging, labels, and materials for research and development
- ✎ taking reasonable steps to ensure that suppliers, contract operators and transporters practice appropriate food security measures (for example, auditing, where practical, for compliance with food security measures that are contained in purchase and shipping contracts or letters of credit, or using a vendor approval program)
- ✎ authenticating labeling and packaging configuration and product coding/expiration dating systems (where applicable) for incoming materials in advance of receipt of shipment, especially for new products requesting locked and/or sealed vehicles/containers/railcars, and, if sealed, obtaining the seal number from the supplier and verifying upon receipt, making arrangements to maintain the chain of custody when a seal is broken for inspection by a governmental agency or as a result of multiple deliveries
- ✎ requesting that the transporter have the capability to verify the location of the load at any time, when practical
- ✎ establishing delivery schedules, not accepting unexplained, unscheduled deliveries or drivers, and investigating delayed or missed shipments
- ✎ supervising off-loading of incoming materials, including off hour deliveries
- ✎ reconciling the product and amount received with the product and amount ordered and the product and amount listed on the invoice and shipping documents,

taking into account any sampling performed prior to receipt

investigating shipping documents with suspicious alterations

inspecting incoming materials, including ingredients, compressed gas, packaging, labels, product returns, and materials for research and development, for signs of tampering, contamination or damage (for example, abnormal powders, liquids, stains, or odors, evidence of resealing, compromised tamper-evident packaging) or "counterfeiting" (for example, inappropriate or mismatched product identity, labeling, product lot coding or specifications, absence of tamper-evident packaging when the label contains a tamper-evident notice), when appropriate

evaluating the utility of testing incoming ingredients, compressed gas, packaging, labels, product returns, and materials for research and development for detecting tampering or other malicious, criminal, or terrorist action

rejecting suspect food

alerting appropriate law enforcement and public health authorities about evidence of tampering, "counterfeiting" or other malicious, criminal, or terrorist action

Storage

having a system for receiving, storing, and handling distressed, damaged, returned, and rework products that minimizes their potential for being compromised or to compromise the security of other products (for example, destroying products that are unfit for human or animal consumption, products with illegible codes, products of questionable origin, and products returned by consumers to retail stores)

keeping track of incoming materials and materials in use, including ingredients, compressed gas, packaging, labels, salvage products, rework products, and product returns

investigating missing or extra stock or other irregularities outside a normal range of variability and reporting unresolved problems to appropriate law enforcement and public health authorities, when appropriate

storing product labels in a secure location and destroying outdated or discarded product labels

minimizing reuse of containers, shipping packages, cartons, etc., where practical

Security of water and utilities

limiting, to the extent practical, access to controls for airflow, water, electricity, and refrigeration

securing non-municipal water wells, hydrants, storage, and handling facilities

ensuring that water systems and trucks are equipped with backflow prevention

chlorinating water systems and monitoring chlorination equipment, where practical, and especially for non-municipal water systems

testing non-municipal sources for potability regularly, as well as randomly, and being alert to changes in the profile of the results

staying attentive to the potential for media

alerts about public water provider problems, when applicable

identifying alternate sources of potable water for use during emergency situations where normal water systems have been compromised (for example, trucking from an approved source, treating on-site or maintaining on-site storage)

Finished products

ensuring that public storage warehousing and shipping operations (vehicles and vessels) practice appropriate security measures (for example, auditing, where practical, for compliance with food security measures that are contained in contracts or letters of guarantee)

performing random inspection of storage facilities, vehicles, and vessels

evaluating the utility of finished product testing for detecting tampering or other malicious, criminal, or terrorist actions

requesting locked and/or sealed vehicles/containers/railcars and providing the seal number to the consignee

requesting that the transporter have the capability to verify the location of the load at any time

establishing scheduled pickups, and not accepting unexplained, unscheduled pickups

keeping track of finished products

investigating missing or extra stock or other irregularities outside a normal range of variation and alerting appropriate law enforcement and public health authorities about unresolved problems, when appropriate

advising sales staff to be on the lookout for counterfeit products and to alert management if any problems are detected

Mail/packages

implementing procedures to ensure the security of incoming mail and packages (for example, locating the mailroom away from food processing and storage areas, securing mailroom, visual or x-ray mail/package screening, following U.S. Postal Service guidance)

Access to computer systems

restricting access to computer process control systems and critical data systems to those with appropriate clearance (for example, using passwords, firewalls)

eliminating computer access when a staff member is no longer associated with the establishment

establishing a system of traceability of computer transactions

reviewing the adequacy of virus protection systems and procedures for backing up critical computer based data systems

validating the computer security system