Fire Control Requirements

Purpose
This document defines the minimum control measures required to reduce the risk of injury or illness related to fire.

Scope
Applicable to all Coca-Cola system locations (manufacturing, distribution, offices, laboratories and all others) worldwide

Definitions
See Appendix.

Requirements

1. Compliance
Implement management practices and controls in accordance with the stricter of Company requirements or applicable legal requirements1 related to fire controls.

   o Establish and maintain processes to identify, access and periodically verify compliance with current versions of these applicable legal requirements. These processes may be specific to fire controls or part of a more comprehensive compliance process.

2. Hazard Identification and Risk Assessment
Conduct and document an initial assessment of the workplace to identify potential fire hazards and necessary controls.

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1 “Applicable legal requirements” means any law, regulation, rule, requirement, standard, norm, decree or code applicable to the relevant facility and/or operation enacted, promulgated or issued by any governmental or regulatory agency or body at the National, Federal, State, Provincial, Municipal or other local level. It may also include relevant and applicable international or regional laws, regulations, rules and agreements, such as, but not limited to United Nations Guidelines and/or European Union (EU) Directives or Regulations, whether adopted into locally applicable law or directly applicable without the need for local adoption.
The assessment:

- May be either a stand-alone document or included as part of a more comprehensive risk assessment. Assessments conducted by third parties, including those for insurance placement, meet this requirement;
- Must be updated whenever processes, equipment or facilities that can create or change potential fire hazard(s) are added or modified; and
- Must be reviewed at least annually to verify that it is current.

3. Administrative Controls

3.1 Fire Emergency and Evacuation Plan

Based on the fire safety assessment and local regulations, as applicable, establish a written Fire Emergency and Evacuation Plan to describe prevention controls and response procedures to be performed in the event of a fire, and procedures for evacuation of the site.

Fire Emergency Plans must contain the following elements as appropriate to the operation:

- Personnel roles and lines of authority in the event of a fire emergency, including, if applicable, notification of, and response by, the site fire brigade;
- Communication and coordination of response activities with outside responders and agencies;
- Procedures for isolation of hazards in the involved area, including electrical and/or hazardous materials (e.g., natural gas, LPG, acids, caustic);
- Site controls to ensure that any required fire control equipment is in operating condition;
- Coordination with other site emergency actions including site evacuation, spill response, medical treatment and incident management;
- Salvage, restoration, decontamination and waste disposal actions and responsibilities;
- Accident investigation and corrective action process. All fire incidents must be investigated using a formalized process to identify the root cause and corrective actions implemented;
- Training requirements and responsibilities;
- Any other controls required by the site in the event of a fire emergency; and
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If applicable to the site, procedures to maintain equivalent fire control measures in the event that automatic fire control systems are not operational.

The evacuation plan must include:

- Initiation of alarms;
- Location of assembly points;
- Roles and responsibilities of personnel in implementing evacuations;
- Verification procedures to ensure all site personnel, contractors and visitors are accounted for;
- Management of media and government officials;
- Processes for evaluating the safety of the site and allowing personnel back onto the site (“All Clear” procedures); and
- Post event debriefing.

3.2 Drills
Conduct annual drills to test the effectiveness of the Fire Emergency and Evacuation Plan.

- If the plant operates a second and/or third shift, then these exercises should be conducted for each shift.
- For each drill, document the time, date, overall performance and evaluation of any improvement opportunities.

3.3 Fire and Evacuation Signage
Provide clear signs understandable to all personnel in the facility to identify the location of emergency exit routes, emergency exits and fire control equipment.

- Post evacuation maps showing the closest exit locations in each area of the facility.
- Emergency exit routes should clearly identify the direction of the exit if the exit is not readily apparent.
- Implement controls, such as emergency lighting, self-illumination or other means, to ensure that emergency exit signs remain visible even in the event of a power outage.
- Elevate signs for emergency exits and fire control equipment in areas where they would otherwise become obstructed so that they are readily recognizable over the obstructions.
3.4 Smoking Controls
Establish specific, clear rules controlling smoking on site, and communicate them to all site personnel, visitors and contractors.

Smoking rules must provide for the following minimum requirements:

- Prohibit smoking in all interior areas. Smoking in private offices may be permitted at local management’s discretion and accountability.
- Provide signs or other indicators understandable to all personnel in the facility to clearly identify any “Smoking” areas on site, as well as “No Smoking” areas if indicated by Company or legal requirement or by the site’s risk assessment.
- “Smoking Areas” may not be located within 8 meters (25 feet) of any storage areas for flammable liquids or gases or within 5 meters (15 feet) from combustible material storage.
- Smoking areas must be provided with non-combustible ashtrays or other controls to prevent the start and spread of fire.

3.5 Dust Management.
Do not permit accumulations of potentially combustible dusts, including those from sugar, starches, cardboard, PET or coal, within the facility boundaries, including near the discharge of vents and dust collectors.

- If cleaning of dust is required to prevent accumulation, use methods that do not result in airborne dust particles.

3.6 Interior Storage
Flammable and combustible materials must be managed and controlled to minimize fire risks.

- Establish a cleaning schedule as necessary to ensure that flammable and combustible scrap materials and debris do not accumulate outside of controlled storage areas.
- All exit routes, fire exits and fire control equipment must be kept clear of obstructing storage and be accessible at all times
- Do not store combustible or flammable materials in or under stairwells, in pedestrian aisles or other fire escape locations.
- Segregate combustible materials from ignition sources, (e.g., motor control centers, fuel-fired equipment and heaters, hot work areas and forklift charging areas) and fire accelerants like oxidizing materials (e.g. Hydrogen Peroxide, Acids, Chlorine, Hypochlorite, Oxygen).
- Specially designed fire-control containers must be used to store self-igniting wastes, like oil-contaminated rags, paper and cardboard or combustible materials that have contacted an oxidizer. Dispose of all other combustible waste materials and residues on a frequent basis.
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3.7 Exterior Storage
Pallets and other combustible materials stored externally must be stored so as to minimize the fire risk.
- Store pallets and combustible packaging materials in areas and in quantities to minimize fire risk.
- Storage must not obstruct evacuation routes, hydrants, sprinkler control valves or other firefighting equipment.
- Maintain at least 1 meter (3 feet) clearance between combustible materials and building structures.
- Do not store combustible materials under air intakes, eves or roof overhangs that can direct smoke or fire into the building.
- Maintain a 7.5 meters (25 feet) radius free of fire hazards (e.g., weeds, tall grass, trash) around outside storage areas of combustible and flammable materials.

4. Building Construction

4.1 Fire Exits
Provide adequate evacuation routes and fire exits to ensure that everyone can evacuate safely without being overcome by smoke, toxic gases, heat or flames.
- Unless otherwise indicated by the site risk assessment, provide at least two exit routes from each workplace located so that if one exit route is blocked by fire or smoke, personnel can evacuate using the second exit route.
- Each exit discharge must lead directly outside or to a street, walkway, refuge area, public way or open space with access to the outside.
- The door that connects any room to an exit route must swing out in the direction of exit travel.
- Construction materials used to separate an exit from other parts of the workplace must have a one-hour fire resistance-rating if the exit connects three or fewer stories and a two-hour fire resistance-rating if the exit connects four or more stories.
- An opening into an exit must be protected by a self-closing door with the same fire resistance rating as the wall separating the exit from other parts of the workplace.
- Employees must be able to open an exit route door from the inside at all times without keys, tools or special knowledge, even in the event of a power outage.
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- Provide emergency lighting throughout the facility as needed to assist in the safe evacuation of work areas in the event of an electrical power failure.
- Provide stairs for all elevated building exits; ladders are NOT acceptable.
- Provide special accommodations, such as ramps or lifts, for workers with physical impairments, when necessary.

4.2 Alarm Systems
Provide fire detection and alarm systems to alert personnel of the need to evacuate and/or respond.

All locations must provide the following:
- Fire alarms that sound an audible alarm throughout the facility, with visual alarms (strobos) in high noise areas or where needed for hearing-impaired persons;
- Smoke and/or heat detection systems in all areas except where sprinkler protection is provided or where local operating conditions negate the installation (e.g., near bottle washing stations); and
- Pull stations or similar alarms at exterior exits and near significant hazards (e.g. flammable liquid or combustible materials storage or use areas, labs, boiler rooms, etc.) that transmit, as a minimum, an audible and visible local alarm, or trigger an immediate visual observation by Security or other personnel.

4.3 Fire Control Infrastructure
Provide rated fire separations, smoke and heat venting systems, water supplies for fire fighting, automatic fire controls and other infrastructure fire control elements as determined necessary for life safety purposes by local and Company requirements, and the site’s fire risk assessment.

5. Fire Control Equipment
Provide fire extinguishers and other fire control equipment as specified by local and Company requirements and the site’s fire risk assessment. At a minimum:

- Provide fire extinguishers as follows:
  - Place Class A rated fire extinguishers for paper, wood and other solid combustibles so that the travel distance for employees in any interior area to an extinguisher is approximately 23 meters (75 feet) or less.
  - Place Class B rated fire extinguishers so that the travel distance from or within flammable liquid storage and use areas to a Class B extinguisher is approximately 15 meters (50 feet) or less.
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- Place Class C rated fire extinguisher near electrical equipment and in rooms that house electrical equipment (e.g., motor control centers, PLC rooms, computer centers, etc).

- Fire extinguishers must be labeled to indicate the class of fire for which they are intended to extinguish and must be readily accessible in the event of a fire.

- Protect fire extinguishers and other fire control equipment as needed to ensure weather or harmful environments do not damage the equipment.

- If fire extinguishers are used or discharged for any reason, they must be removed from service and replaced.

6. Maintenance and Inspection

Implement documented maintenance and inspection programs for fire protection systems and fire control equipment that meet the stricter of the Fire Protection Equipment Maintenance Guidelines, local requirements or the manufacturer’s instructions.

7. Training

7.1 General

Ensure that employees and other affected personnel are adequately trained to perform their roles and responsibilities with regard to fire controls, emergency response and evacuation.

Training must include:

- Documented initial awareness training and annual refresher training for all employees regarding their specific role in the fire emergency and evacuation plans, including the location of fire exits in their work areas;

- Documented initial awareness training and annual refresher training for all employees who are expected to use fire extinguishers for control of incipient stage fires. Training must include:
  - General principles of fire extinguisher use;
  - Hazards involved with incipient stage firefighting; and
  - “Hands-on” training using the extinguishers on a real fire during the initial training session.

- Ensuring that contractors and visitors understand and follow site requirements regarding the fire controls and the fire emergency and evacuation plan, in compliance with the Contractor and Visitor Management Requirements;

- Documented initial and annual training for Fire Brigade members, as described below, if applicable to the site.
WARNING: The Company does not advocate employees fighting fires beyond the use of fire extinguishers for incipient-stage fire fighting. Fire fighting using hoses or other equipment beyond fire extinguishers is considered "industrial fire fighting" and should not be undertaken unless personnel have received the training and are using the personal protective equipment specified below, under Requirement 7.2 ‘Fire Brigades.’ Operations are NOT required to maintain Fire Brigades, unless legally required or deemed necessary by the operation’s management as a result of the facility’s fire risk assessment.

7.2 Fire Brigades
If the facility chooses to implement a fire brigade, the members must be trained and equipped to safely perform their duties. At a minimum:

- Provide documented initial and annual refresher training and education for all fire brigade members commensurate with those duties and functions that fire brigade members are expected to perform so as not to endanger fire brigade members or other employees.
  - Training must be "hands-on," using the hose reel systems and/or other required fire control equipment on a real fire.

- Provide fire brigade members who are expected to perform interior structural firefighting with an education session or training at least quarterly.

- Provide fire brigade leaders and training instructors with training and education that is more comprehensive than that provided to the general membership of the fire brigade.

- All protective equipment must meet or exceed appropriate local country requirements or equivalent consensus standards, such as NFPA, EN, IEEC, etc. Provide employees who perform interior structural firefighting with the following protective equipment:
  - Protective shoes or boots worn in combination with protective, water-resistant trousers, equipped with slip-resistant outer soles and provide protection against nail penetration;
  - Fire-resistant body protection (coat in combination with protective trousers);
  - Protective gloves or glove system that will provide protection against cut, puncture and heat penetration. Exterior materials of gloves shall be flame resistant;
  - Protective head device with ear flaps and chin strap;
  - Protective eye and face devices to minimize the hazards of flying or falling materials that may cause eye and face injuries; and
Approved self-contained breathing apparatus ("SCBA") with full facepiece, or with approved helmet or hood configuration. SCBA must be provided to and worn by fire brigade members while working inside buildings or confined spaces where toxic products of combustion or an oxygen deficiency may be present. SCBA must be a pressure-demand or other positive-pressure type, have a minimum service-life rating of 30 minutes and be selected and used in compliance with the *Respiratory Protection Requirements*. 
References

Fire Safety Guidelines
Fire Protection Equipment Maintenance Guidelines
EC Safety Signs Directive (92/58/EEC)
NFPA 25 Water-based Fire Protection
NFPA 30 Flammable and Combustible Liquids Code
NFPA 80 Fire Doors and Other Openings
NFPA 101 Life Safety Code
OSHA 1910.36
OSHA 1910.155-159
Compressed Gas Requirements
Contractor and Visitor Management Requirements
Flammable Liquid Requirements
Hot Work Requirements
Personal Protective Equipment Requirements
Respiratory Protection Requirements

Revision History

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>Summary of Change</th>
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<tbody>
<tr>
<td>1-Jan-2010</td>
<td>Revised document released as part of the TCCMS Redesign - Governance Reset. This document contains content from the previous version with reformatting and significant rewording.</td>
</tr>
<tr>
<td>5-July-2007</td>
<td>Revised Scope to defined specific sections for all operations and Company-owned operations. Some requirements can be considered “property loss prevention” requirements and may be implemented by franchise operations at their discretion. These are mandatory for Company-owned operations. Incorporated and consolidated Combustible Materials Requirements as there was much overlap in the contents and purpose. For consistency with other Requirements: deleted Responsibilities section, revised language relative to building construction and automatic fire controls For clarity, revised language for pull stations, inspection of conveyor opening, and automatic fire controls Added requirements for evacuation plan, allowing deluge systems in lieu of conveyor openings, Moved fire control alarm requirements to Guidelines.</td>
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<tr>
<td>17-Jan-2006</td>
<td>Initial Issue</td>
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Appendix

Definitions

**Automatic Detection System:** Any system that responds to a fire or evidence of fire by initiating an alarm (audible, visible or electronic alert) to a local area, control panel, response service or automatic dialer. Typically, these systems use heat detectors, smoke detectors or fire system flow valves to initiate the alarm.

**Automatic Fire Control System:** Any system that responds to a fire or evidence of fire by initiating extinguishing or control activity. Typically, these systems use some detector or heat-activated fusible link to activate a sprinkler system (water or foam), pressurized extinguishing media or other extinguishing media. Fire walls, fire doors and smoke ventilation systems are considered to be part of a fire control system.

**Combustible Materials:** Include, but are not limited to paper products (corrugated cartons, sheet liners, packaging, labels); plastics (PET bottles, preforms, resin, crates, closures, stretch/shrink wrap, drums); pallets; and combustible liquids (liquid having a flashpoint at or above 37.8 °C (100 °F).

**Fire Door:** A fire-rated closure over an opening in a rated fire wall or separation. When the door protects an opening through which people or lift trucks travel, it is commonly called a fire door. Smaller doors that protect conveyor openings or other penetrations are called fire shutters. This document refers to both instances as “fire doors.”

**Fire Dampers:** Protective devices installed in air distribution systems where fire walls are penetrated, usually in a duct. Typically, fire dampers are held open by a fusible link or other heat-activated device. These devices are located where they are readily affected by an abnormal rise in duct temperature. Some dampers are combination devices intended to prevent passage of heat and smoke. Fire dampers are usually a louvered arrangement.

**Fire Rating:** A rating of the fire resistance as determined by a listing agency. All fire doors have a label permanently affixed to the door stating the rating and the listing agency.

**Fire Rated Separation:** A wall that provides a fire resistance rating for one (1) or two (2) hours. A fire penetration will not be freestanding, will not be parapeted and can have penetrations (operations doors, man doors, conveyor openings, HVAC penetrations, etc). To maintain the rating of the partition, the penetrations must be provided with closures of appropriate rating.
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Fire Stop: Fire stopping/sealing compounds are products that are used to seal openings and maintain the integrity of a fire rated wall/partition. These materials are produced in various shapes and sizes and are capable of closing various size wall (or floor) openings. The material should provide a fire resistance rating equivalent to the fire rating of the wall/partition. Only Underwriters Laboratories (UL) listed materials should be used.

Fire Wall: A wall that will provide a fire resistance rating greater than two-hours, up to four hours. A firewall may or may not be free standing, does not have unprotected penetrations and may or may not be parapeted.

Flammable liquid: Based on National Fire Protection Association (NFPA) 30 – Flammable and Combustible Liquid Code – 1996 Edition, flammable liquid has a flash point less than 38°C (100°F), and includes liquid sub-classifications 1A, 1B and 1C. The European Community definition of flammable liquid includes liquids with flash point less than 55°C (131°F), using 1A, 1B and 1C sub-classifications. United Nations Recommendations for the transport of Dangerous Goods, as well as modal codes for ocean freight, air freight and road/rail transport define a flammable liquid as one having a flash point less than 61°C (141°F).

Given the absence of a universally applicable upper-bound flash point limit for the definition of Flammable Liquid, this Requirement is intended to cover all materials that bear the “Flammable” liquid label (often red with a black or white flame) and other flammable liquids that, though unlabeled, are known to a facility and have a flash point below 61°C (141°F). #2 Diesel Fuel is specifically excluded from this definition.

Flammable Liquid Handling Area: An area where flammable liquid(s), as ingredients, intermediate products or finished goods, are transferred from one container to another or are processed.

Fusible Link: Heat sensitive devices installed to restrain a door in an open position. The link incorporates a solder element. When exposed to sufficient heat, the link releases weights, springs or other mechanisms automatically closing the door. The rated release temperature of fusible links is 71°C (160°F), but not more than 28°C 50°F (50°F) above highest anticipated ambient temperatures.

Hot Work: Any cutting, welding, soldering, sweating or other activity involving a torch, open flame or other ignition source. Grinding, torch-applied roofing and portable heating units such as gas-fired salamanders, electric heaters, hot-air guns and similar devices also require a hot work permit.
**Impairment:** A condition where a piece of protective equipment such as a sprinkler system, alarm system, ventilation system or other protective device or system is taken out-of-service.

**Incipient Level Fire:** A fire in the initial or beginning stage that can be controlled by using a portable fire extinguisher and that does not require using protective equipment.

**Parapet:** An extension of a fire resistant wall through the roof or a side wall to prevent a fire from spreading past a fire wall by going over the top or around the ends of the wall.

**Solid Barrier:** Solid sheeting – preferably of non-combustible construction – installed at specific storage levels of a rack storage arrangement. In-rack sprinklers will be installed directly beneath the barrier(s). The intention of a barrier is to collect heat from a fire, allowing activation of in-rack sprinklers in the immediate fire area.

**Sprinkler Orifice:** The opening through which water flows from a sprinkler head. Standard sprinkler heads have a 13mm (1/2”) orifice. The ESFR sprinkler head referenced throughout this Requirement has 20mm threads and a water orifice of 18mm.