MEMO

MQ TO QSAI PROGRAMME PARTICIPANTS & QSAI CATERING ORGANIZATIONS – RISK ASSESSMENT AND RESPONSE PLAN TO SARS-COV-2 & COVID-19

To:	QSAI Programme Participants
From:	Sylvain Bugeya – Sr. Manager, Strategic Partnerships - Medina Quality
cc:	David Medina – Chief Operations Officer - Medina Quality Diane Jen – Manager, Client Relationship Management - Medina Quality Ariana Kelly – Supervisor, Client Relationship Management - Medina Quality Dr. Nicolas Gryson – Director, Programme Development & Management – Medina Quality Vanessa D'Antico – Manager, Programme Development & Management – Medina Quality Isabelle Tran – Supervisor, Programme Development & Management – Medina Quality
Date:	April 5th, 2020

Dear QSAI Programme Participants & QSAI Inflight Catering Organizations,

The recent and continued progression of the Severe Acute Respiratory Syndrome Coronavirus 2 ("**SARS-CoV-2**") and its associated disease known as Coronavirus Disease 2019 ("**COVID-19**") has had a significant impact on the world and its economies with a particularly acute impact on the passenger travel industry. Airlines, railway operators, inflight catering organizations, food suppliers and travelling passengers are not only struggling with the impact of this pandemic, but they must now also diligently assess the new food safety risks that this virus creates for individuals and air/rail businesses.

As part of Medina Quality's ("**MQ**") role in and responsibilities to the Quality & Safety Alliance for Inflight Services ('**QSAI**") Programme, Medina Quality is working on behalf of member Airlines & Railway Operators and QSAI Inflight Catering Organizations to address these new risks and challenges insofar as it affects the safety and quality of onboard food service. As always, the safety & well-being of passengers and crew remain the Quality & Safety Alliance for Inflight Services' ("**QSAI**") top priority.

Despite the global reduction in travel and inflight catering demand, many airlines, railway operators and inflight catering facilities continue to provide food to passengers and crew through the current SARS-CoV-2 and COVID-19 crisis. The QSAI programme is designed to monitor and prevent **bacterial**, **chemical** and **physical** contamination of onboard food. However, the emergence of SARS-CoV-2 and COVID-19 creates new food safety risks associated with the possibility of viral contamination

of passengers and crew. Therefore, QSAI must create and ensure compliance with new requirements specifically designed to ensure that onboard food service is not a **viral** safety risk to passengers and crew. In short, important risk mitigating measures, controls and monitoring activities are needed to reduce the possibility of exposure to and the spread of SARS-CoV-2 and COVID-19.

To help QSAI Airlines & Railway Operators and QSAI Inflight Catering Facilities maintain overall food safety, conduct a risk assessment of the impact of SARS-CoV-2 and COVID-19 on food safety in the onboard food service context and to understand any new requirements resulting from that risk assessment or mandated by national and international health authorities, MQ has completed a review of the current scientific and regulatory guidance on SARS-CoV-2 and COVID-19 and its associated risks the onboard food service chain.

Based on its assessment of the risk of transmission through food, food & non-food contact surfaces, water & ice, and by onboard food related personnel (i.e.: Food Handling Employee, Dispatchers, Crew etc.), MQ has:

1. Implemented precautionary measures to minimize QSAI Airlines' & Railway Operators' and QSAI Inflight Catering Facilities' exposure to SARS-CoV-2 and COVID-19 to, including:
   - Temporary Suspension of all QSAI on-site Validation Audits
   - Protective measures for MQ Personnel & Head Office;
2. Developed guidance for QSAI Airlines & Railway Operators and QSAI Inflight Catering Facilities on SARS-CoV-2 and COVID-19, including background and detailed information on its transmission, ways to prevent the spread and measures to protect personnel;
3. Developed new Food Processing Safety ("**FPS**") requirements for QSAI Inflight Catering Facilities to minimize QSAI Airlines & Railway passengers and crew exposure to SARS-CoV-2 and COVID-19;
4. Developed a QSAI COVID-19 Food Processing Safety ("**FPS**") electronic Audit ("**e-Audit**") to assess:
   - The use and effectiveness of precautionary measures used by QSAI Inflight Catering Facilities to minimize the risks of passenger and crew exposure to SARS-CoV-2 and COVID-19 and based on the new QSAI requirements;
   - QSAI Inflight Catering Facilities continued compliance with existing QSAI Food Processing Safety standards that not only demonstrate that facilities continue to maintain critical food safety risk management but that are also effective at minimizing the risk of passenger and crew exposure to SARS-CoV-9 and COVID-19.

The following Memorandum ("**memo**") provides the complete details regarding these initiatives and guidance.

On behalf of all MQ, please let me reassure you that every effort will be made to support QSAI Airlines & Railway Operators and QSAI Catering Organizations through the SARS-CoV-2 and COVID-19 pandemic. We wish to you all the best during this difficult time and to thank you once again for your partnership.

Should you have any questions or comments, please do not hesitate to contact me at +1 514 919 0514 or sbugeya@medinaquality.com.

Best regards,

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1. PRECAUTIONARY MEASURES TO MINIMIZE EXPOSURE TO QSAI PROGRAMME PARTICIPANTS & QSAI INFLIGHT CATERING FACILITIES

1.1 TEMPORARY SUSPENSION OF ALL ON-SITE VALIDATION AUDITS

As of March 18th, 2020, all Quality & Safety Alliance for Inflight Services ("**QSAI**") on-site Validation Audits ("**V-Audits**") have been temporary suspended. This will be in effect for the months of March 2020, April 2020 and *potentially* May 2020 taking into consideration the Canadian government's policy on international travel.

MQ is closely monitoring the situation including the case counts by country, regions and city to determine the current risk-level of each location. Rest assured, MQ will comply with any national or international governmental restrictions on travel.

1.2 PROTECTIVE MEASURES FOR MQ PERSONNEL AND HEAD OFFICE

Several protective measures, including health, hygiene and sanitization protocols have been implemented by MQ to mitigate the risk of infection and spread SARS-CoV-2 and COVID-19. These include:

- Complying with the Government of Canada's travel advice and advisories, including a required 14-days self-quarantine for any MQ personnel who have travelled internationally;
- Updated policies on self-monitoring and self-isolation for any MQ personnel with signs or symptoms of COVID-19 or exposure to any individual with such signs or symptoms;
- Updated policies on hand washing, social distancing, and signs & symptoms of COVID-19 posted at workstations and entry points;
- Increased frequency and deep clean and sanitization by a third-party service provider of all work areas including office equipment, workstations, and common areas. This includes the use of a chemical agents which can eliminate viruses from surfaces;
- Availability & use of sanitization wipes, sprays, and/or other sanitization agents at all workstations.
- Limitations on non-essential visitors & non-essential on-site meetings with vendors, clients and/or affiliates;
- Updated work-from-home policy for all non-essential MQ personnel to limit the exposure to COVID-19.

As of April 2nd, 2020, there are no known cases of COVID-19 amongst MQ personnel. MQ will continue to closely monitor the health & well-being of all and of any MQ personnel with any intended travel to ensure there is no risk of exposure to a QSAI Airlines, Railway Operator or QSAI Inflight Catering Facility.

2. GUIDANCE FOR QSAI AIRLINES & RAILWAY OPERATORS AND QSAI INFLIGHT CATERING FACILITIES

2.1 BACKGROUND & DETAILED INFORMATION ON SARS-COV-2 AND COVID-19

2.1.1 ORIGINS & NAMING

Coronaviruses are a family of viruses that are common in many species of animals, including humans. Rarely, coronaviruses found in animals can infect humans and then spread from person to person, such as with Middle East Respiratory Syndrome Coronavirus ("**MERS-CoV**"), the 2003 Severe Acute Respiratory Syndrome Coronavirus ("**SARS-CoV**") and, most recently, SARS-CoV-2.[1]

The first known infections from the SARS-CoV-2 strain were discovered in Wuhan, in Hubei province of the People's Republic of China ("**China**"), but the original source of transmission remains unclear. Both the WHO and American Centre for Disease Control ("**CDC**") consider bats to be the most likely natural reservoir of SARS-CoV-2. The initial jump from animal source to humans is believed to have occurred at a wet market in Wuhan.

At the start of the outbreak, the exact taxonomy and other details about the virus were unknown. It was temporarily named the 2019 novel coronavirus ("**2019-nCoV**") and is occasionally referred to as the Wuhan coronavirus. On February 11, 2020, the International Committee on Taxonomy of Viruses ("**ICTV**") announced the differences between 2019-nCoV and the viral strain from the 2003 SARS outbreak were insufficient to make it a separate viral species, resulting in a name change to "SARS-CoV-2", which was published in the journal Nature Microbiology on March 02, 2020[2]. To avoid confusing the general public, many news sources have continued to refer to the virus by the name 2019-nCoV, or are referring to the disease ("**COVID-19**") rather than the infectious agent. You may see one or more of the above names used to describe this same disease profile / infectious agent depending on your news source. In this document, we will refer to the virus as "SARS-CoV-2" and the disease/infectious cases as "COVID-19".

2.1.2 TRANSMISSION

Coronaviruses need a host in order to replicate and cannot replicate on surfaces or in food. Most transmissions are believed to be the result of transfer of the virus from symptomatic persons to the uninfected and, as of this writing, there have been no confirmed cases of transmission from animals to humans or from food to humans.

[1] (Centers for Disease Control and Prevention, 2020)
[2] (Gorbalenya, Baker, & Baric, 2020)

2.1.2.1 HUMAN-TO-HUMAN

SARS-CoV-2 is confirmed to be transmitted from human-to-human and this transmission occurs primarily through the transfer of respiratory droplets (i.e. spittle from coughs and sneezes) within a range of approximately 1.8 metres. It is thought that people are contagious prior to exhibiting symptoms, but this is not thought to be the primary method of viral spread.[3] Viral RNA has also been found in stool samples from infected patients, and therefore transfer between persons resulting from improper hygiene is possible.

2.1.2.2 SURFACES

A study investigating the airborne and surface stability of CoV-19 found that viable virus could be detected in aerosols up to 3 hours post aerosolization, up to 24 hours on cardboard and up to 2-3 days on plastics and metals. However, researchers caution that observations made in the laboratory may not directly reflect how long the virus will stay on surfaces out in the world[4]. Human coronaviruses such as the SARS-CoV and MERS-CoV can persist on surfaces like metal, glass or plastic for up to 9 days (depending on the material), but these viruses can be inactivated by surface disinfection/sanitization procedures with ethanol, hydrogen peroxide or sodium hypochlorite.[5] If proper cleaning and sanitization procedures are followed, there is very low risk of transmission. **Indirect contact through contaminated surfaces is another *possible* means of infection; however, no confirmed cases of transmission by this means have been reported. Therefore, as there is a *potential* risk of contamination through contaminated surfaces, it is required that all persons wash their hands at regular intervals using an appropriate method, avoid touching their faces, and that regular cleaning & sanitization of surfaces that are frequently touched (e.g. doorknobs, elevator buttons) be upheld using disinfectant for which the manufacturer claims antiviral activity (i.e. can deactivate or kill the virus).**

2.1.2.3 FOOD

There is currently no evidence that any Human coronavirus infections have originated from contaminated food items. Transmission through food is unlikely and there has been no evidence of this occurring with SARS-CoV-2 to date. As a preventative measure, it is recommended to thoroughly cook all Potentially Hazardous Foods to safe core temperatures as outlined in the QSAI Food Processing Safety ("**FPS**") Standards and Interpretation Guidelines ("**SIGs**").[6] Normal catering processes can be upheld.

2.1.2.4 WATER & ICE

The survivability of SARS-CoV-2 in water is still unknown; however, there is currently no evidence of SARS-Cov-2 being detected in drinking water supplies. Scientific knowledge about the characteristics of other related coronavirus indicates that SARS-CoV-2 is likely to be more susceptible to inactivation than other water-borne microorganisms. Based on current evidence, the risk of SARS-CoV-2 being transmitted through

[3] (Centers for Disease Control and Prevention, 2020)
[4] (Doremalen, et al., 2020)
[5] (Kampf, Todt, Pfaender, & Steinmann, 2020)
[6] (Food Standards Australia & New Zealand, 2020)

contaminated water is low[7]. Conventional, centralized water treatment methods such as filtration and disinfection should be sufficient to inactivate SARS-CoV-2 and drinking water from public water systems which apply these treatment methods can continue to be used as usual.

2.1.2.5 CONTAMINATED OBJECTS & SURFACES

Even though SARS-CoV-2 can exist on surfaces for a few hours or up to several days (depending on the type of surface), it is very unlikely that the virus will persist long-term on a surface after being transported, shipped, or exposed to different conditions and temperatures. Goods manufactured any country reporting COVID-19 cases will not transmit the virus. Nevertheless, if you feel a surface may be contaminated, you should use a disinfectant to clean it, and wash your hands with soap and water after cleaning.

2.1.3 INCUBATION PERIOD

The "incubation period" is the time between catching the virus and beginning to have symptoms of the disease. Most estimates of the incubation period for COVID-19 range from 1-14 days, most commonly around five days. According to a recent report, 95% of people show symptoms within 4-6 days, with 97.5% of people with infection showing symptoms within 11.5 days. Rarely, in approximately 1% (conservative estimation), symptoms may present after 14 days of infection[8].

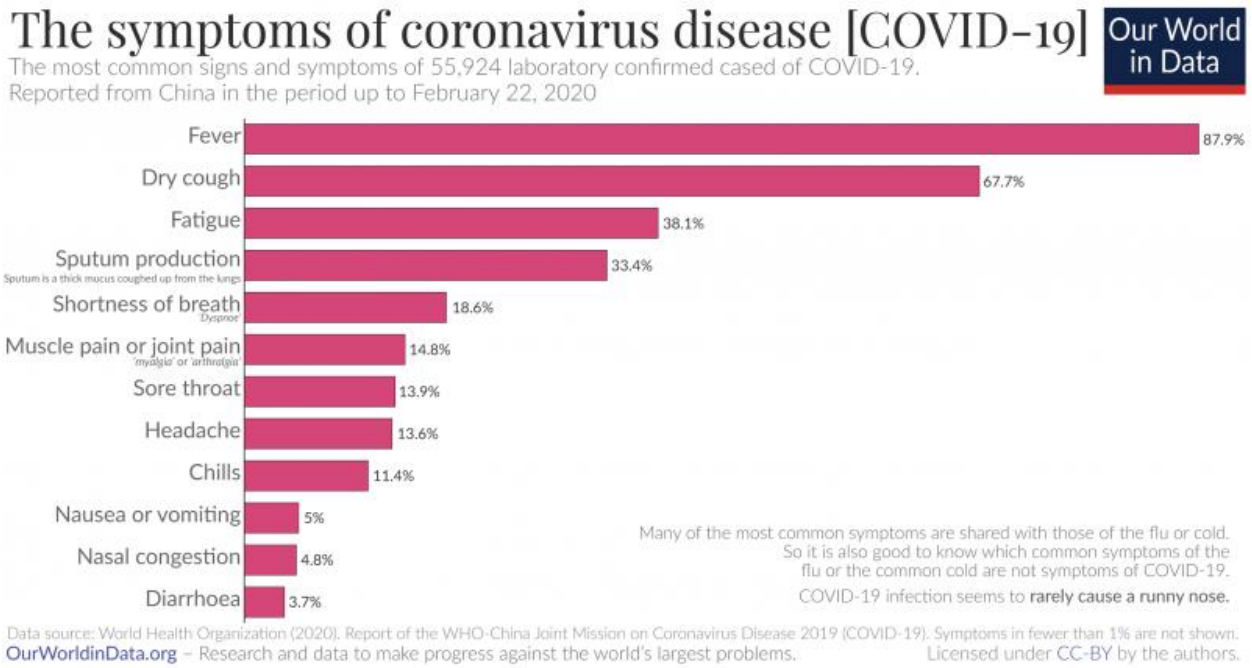
2.1.4 RECOVERY PERIOD

On average, determined from the 55,924 confirmed cases in China at the time of the WHO report, the median time from onset to clinical recovery for mild cases is approximately 2 weeks. For severe and critical cases, it is approximately 3-6 weeks. Of those who ultimately died, the time from onset of symptoms to death ranged from 2-8 weeks.[9] Most people (about 80%) recover from the disease without needing special treatment.

2.1.5 SYMPTOMS & TREATMENT

The data suggests that most COVID-19 illness is mild, with the more severe cases of the disease affecting those with weaker immune systems, such as the elderly and persons who have existing health conditions (e.g. heart disease, diabetes). Serious illness occurs in 16% of total cases, and those with severe cases had a median age 7 years greater than those presenting as mild/asymptomatic.[10]

[7] (World Health Organization, 2020)
[8] (Lauer, et al., 2020)
[9] (World Health Organization, 2020)
[10] (Wei-jie Guan, et al., 2020)



Symptoms of COVID-19 are not unique to this virus which makes it difficult to differentiate from other sicknesses. Presentation ranges from being completely asymptomatic to mild cold and flu-like symptoms including fever, cough, fatigue, shortness of breath, malaise and/or muscle pain. This can later develop into severe pneumonia, acute respiratory distress syndrome, sepsis, shock and in extreme cases even death.

There is currently no specific antiviral treatment for COVID-19 and people with COVID-19 should receive supportive care to help relieve their symptoms while their bodies fight off the infection. Most persons recover from infection, similar to a normal cold; severe illness is mostly associated with the elderly or those with existing health conditions.

2.1.6 Protecting Yourself & Others

There is currently no vaccine to prevent COVID-19 and therefore the best way to prevent disease is to avoid exposure to the infectious agent. Nevertheless, there are everyday preventative actions that can help reduce the spread of respiratory diseases.

2.1.6.1 Hand Washing

The most effective way to protect oneself against the SARS-CoV-2 is by frequently and thoroughly washing one's hands with soap and water according to the following steps:

1. Wet your hands with clean, running water, turn off the tap and apply soap
2. Lather your hands by rubbing them together with the soap, lather the backs of your hands, between your fingers, and under your nails.

3. Scrub your hands for at least 20 seconds. If no timer is available, it is recommended to sing the "Happy Birthday" song twice from beginning to end. If hands are visibly dirty, they should be washed for 40–60 seconds.
4. Rinse your hands under clean running water
5. Dry your hands using single-use towels or air dry them.

The use of alcohol-based hand sanitizers has also proven effective – if the sanitizer has an alcohol concentration of 60% or more; however, they should not be used in place of proper hand washing procedures as sanitizers do not remove all types of microorganisms, and soap and water are more effective at removing certain microorganisms such as Cryptosporidium, norovirus, and Clostridium difficile.

2.1.6.2 Social Distancing

It is recommended that you maintain a distance of at least 1 metre and preferably 2 metres between yourself and anyone who is coughing or sneezing. When someone coughs or sneezes, they spray small liquid droplets from their mouth or nose, which may contain the virus. If you are too close, you can breathe these droplets in.

If a person suspects that they are infected with SARS-CoV-2, they should self-isolate for 14 days. Self-isolation procedures include staying in one's home, separating oneself from other people, asking friends and family members to carry out errands, and having delivery items be left outside for collection. Self-isolation can lead to depression, anxiety and anger, so it is important to provide employees and loved ones who have decided to self-isolate with social and emotional support.

2.1.6.3 Face Masks

Public health authorities do not recommend that people who are healthy wear a face mask to protect themselves from respiratory diseases, including COVID-19; facemasks should only be used by people who show symptoms to prevent the spread of the disease to others.

If you are healthy, you only need to wear a mask if you are taking care of a person with suspected SARS-CoV-2 infection, and masks are only effective when used in combination with frequent hand washing.
Anecdotal evidence from catering companies has indicated that the adenosine triphosphate (ATP) counts (a measure of bacterial growth) from hand swabs of employees wearing face masks is higher than those not wearing masks. The hypothesis for this result is that the masks are frequently being adjusted/touched after being put on, increasing contamination of employees' hands. Therefore, it is inadvisable to add face masks to the uniform policy / personal protective equipment ("**PPE**") if this practice is not already in place, as it may lead to lower levels of Good Manufacturing Practice ("**GMP**") compliance and lead to a decrease in hygiene rather than an increase.

If persons decide to wear masks or, despite the above, have been requested to wear masks, it is important that they take the necessary precautions and use masks properly.

1. Before putting on a mask, persons should wash their hands and, if available, use an alcohol-based hand sanitizer.

2. Cover their mouth and nose with the mask and make sure there are no gaps between their face and the mask.
3. Avoid touching the mask while wearing it. If they do happen to touch the mask, they should wash their hands with soap and water and use an alcohol-based hand sanitizer.
4. Replace the mask with a new one as soon as it is damp and do not re-use single-use masks.
5. When they are finished, remove the mask from behind (do not touch the front of mask) and discard the mask immediately in a covered waste bin (preferably foot operated).
6. Wash their hands with soap and water and sanitize them with an alcohol-based hand sanitizer if available.

2.1.6.4 RESPIRATORY HYGIENE

Respiratory hygiene consists of prevention measures to contain respiratory secretions and reduce the risk of transmitting respiratory infections to others[11]. They aim to limit the spread of droplets containing SARS-CoV-2, which are generated when an infected person coughs and/or sneeze. Practicing good respiratory hygiene includes covering the mouth and nose when coughing or sneezing, either with a bent elbow or by using a disposable tissue and discarding the used tissue immediately[12]. Hands should be thoroughly washed after every instance of touching the mouth and the nose.

It is recommended that all employees and visitors are made aware of respiratory hygiene and cough etiquette via training and visual alerts.

[11] (Centers for Disease Control and Prevention, 2016)
[12] (World Health Organization, 2020)

3. PRECAUTIONARY MEASURES FOR QSAI INFLIGHT CATERERS

The Quality & Safety Alliance for Inflight Services ("**QSAI**") Food Processing Safety ("**FPS**") & Food Processing Quality ("**FPQ**") Standards & Interpretation Guidelines ("**SIGs**") cover a wide variety of activities that help prevent the spread of communicable diseases from caterers to an aircraft or train, and include best practices for limiting spread of communicable diseases between aircraft/trains through shared equipment.

As always, QSAI Inflight Catering Facilities are encouraged to comply with all requirements of the QSAI FPS & FPQ SIGs; however, Medina Quality ("**MQ**") has detailed additional precautionary measures and recommendations for QSAI Inflight Catering Facilities to control and prevent SARS-CoV-2 and COVID-19 from entering the food processing environment and thus the risk of transmission to QSAI Airlines & Railway Operators.

3.1 FOOD SAFETY TRAINING PROGRAMME

3.1.1 ADDED REQUIREMENTS:

All employees (including externally contracted employees) should be trained on:

1. **How SARS-CoV-2 and COVID-19 spreads.**
2. **How to prevent the spread of SARS-CoV-2 and COVID-19** (ex.: social distancing, remind employees to avoid touching eyes, nose, and mouth as hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth. From there, the virus can enter your body and can make you sick.).
3. **COVID-19 symptoms** (i.e. cough, shortness of breath, fever, breathing difficulties).
4. Respiratory hygiene (this means covering the mouth and nose with a bent elbow or tissue when coughing or sneezing).
5. Appropriate sanitation and disinfection procedures for SARS-CoV-2 and COVID-19:
   - Cleaning staff should wear disposable gloves and gowns for all tasks in the cleaning process, including handling trash. If splashing is possible, eye protection, such as a face-shield or goggles and facemask may be required (e.g. cleaning of toilets)
   - If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection. For disinfection, diluted household bleach solutions, alcohol solutions with at least 70% alcohol, and most common EPA-registered household disinfectants should be effective.
   - Do not shake dirty laundry (i.e. uniforms); this minimize the possibility of dispersing virus through the air. If possible, launder items using the warmest appropriate water setting for the items. Clean and disinfect hampers or other carts for transporting laundry.
   - Cleaning staff should immediately report breaches in Personal Protective Equipment ("**PPE**") (e.g. tear in gloves) or any potential exposures (e.g. contact with blood or body fluids without wearing appropriate PPE) to their supervisor
6. **Receivers and dispatchers must be trained on transmission reduction measures** when interacting with suppliers and crew members (e.g. avoid shaking hands as a greeting).

3.2 Medical Screening of Employees & Visitors:

3.2.1 Added Requirements:

1. **The list of symptoms and diseases on health screening documents / questionnaires should be expanded** and should include screening for **travel within the past 14 days (and where),** and **any symptoms of COVID-19** (i.e.: fever, cough, shortness of breath, breathing difficulties).
2. Employees must **sign an agreement to notify if COVID-19 symptoms** appear after the screening process, and **if they have been in close contact with a confirmed or probable case of COVID-19.**
3. **Updated policy** must specify **corrective actions if employees have COVID-19** signs and symptoms (i.e. stay at home or work from home).
4. **Brief employees, contractors and customers** that anyone with even a mild cough or low-grade fever (37.3 C or more) needs to stay at home.
5. **Brief employees** that they should also stay home (or work from home) if they have had to take simple medications, such as paracetamol/acetaminophen, ibuprofen or aspirin as these may mask symptoms of COVID-19.
6. Update procedure to limit all non-essential visitors and postpone any visits and on-site meetings where possible.
7. Delivery people from **suppliers must complete this updated health questionnaire every 14 days** if they enter the facility and/or manipulate the packaging of delivered items.

3.3 Personal Appearance – Uniforms, Hair Covering, Jewellery

3.3.1 Added Requirements:

1. If masks are used, implement a policy for appropriate mask management:

   The following information on correct use of medical masks derives from the practices in health-care settings:

   - Place mask carefully to cover mouth and nose and tie securely to minimise any gaps between the face and the mask
   - While in use, avoid touching the mask
   - Remove the mask by using appropriate technique (i.e. do not touch the front but remove the lace from behind)
   - After removal or whenever you inadvertently touch a used mask, clean hands by using an alcohol-based hand rub or soap and water if visibly soiled
   - Replace masks with a new clean, dry mask as soon as they become damp/humid
   - Do not re-use single-use masks

- Discard single-use masks after each use and dispose of them immediately upon removal

2. Cloth (e.g. cotton or gauze) masks are not recommended under any circumstance.

3.4 Cleanliness and Maintenance of Toilets & Changing Rooms

3.4.1 Added Requirements:

1. When possible, the toilet should be flushed with the lid down to prevent droplet splatter and aerosol clouds. If it is not possible to provide separate toilets, the toilet should be cleaned and disinfected at least twice daily by a trained cleaner wearing PPE (that is, gown, gloves, boots, mask, and a face shield or goggles).

3.5 Proper Hand Washing

3.5.1 Added Requirements:

1. **Update hand washing policy targeted towards COVID-19 prevention:** When hands are visibly dirty, they should be washed with soap and water for **40–60 seconds** using the appropriate technique.

2. **Add in instances of handwashing that hands must be washed prior to manipulating clean equipment.**

3. **The hand sanitizer should contain at least 60% alcohol.**

4. **Increase the number of visual reminders for hand washing throughout the facility.**

3.6 Food Supplier Approval & Monitoring

3.6.1 Added Requirements:

1. **Caterers must send a notice to their suppliers** to inform them they are expected to proactively implement prevention measures to limit the spread of COVID-19.
2. **Caterers must receive a written agreement from their suppliers** as assurance that prevention measures have been put in place to limit the spread of COVID-19, including updated supplier policies related to all deliveries to the caterer's facility and health screening of delivery people.
3. Where possible, processors should establish at least one and preferably two secondary suppliers for their raw materials and ingredients.

4. If there is a supply chain problem caused by COVID-19, Food businesses should consider some of the following:
    - leaving out or substituting ingredients in a product, and/or
    - changing their packaging, and/or
    - changing their process
5. Any change to product, packaging or processing requires a full review of the business' food safety management system (GHP and HACCP).

3.7 Food Safety Controls for Receiving Foods

3.7.1 Added Requirements:

1. Receiving records should include the name of the supplier who delivered each incoming delivery, as well as the name of the employee who received and verified the delivery. This will strengthen traceability systems in the event of a COVID-19 diagnosis.

2. Policy on transmission reduction measures and social distancing to reduce the risk of COVID-19 in received products must be easily visible and posted in the receiving area (e.g. whenever possible, minimize points of close contacts such as not sharing stylus pens for signatures during the delivery process, avoiding handshakes).

3.8 Cleaning & Sanitization Programme

3.8.1 Added Requirements:

1. The disinfectant used should be one for which the manufacturer claims antiviral activity, meaning it can kill the virus (such as chlorine-based disinfectants). The WHO and the US EPA have developed recommendations.
2. When disinfecting for coronavirus, it is recommended to follow the product label use directions for enveloped viruses, as indicated by the approved emerging viral pathogen claim on the master label. If the directions for use for viruses/ antiviral activity list different contact times or dilutions, use the longest contact time or most concentrated solution.
3. Enhanced routine Cleaning and Sanitization Programme targeted towards COVID-19 (e.g. increased frequency, change of products or chemical agents to be used).
4. In addition to routine cleaning, clean and sanitize frequently touched surfaces twice per day (i.e.: doorknobs, elevator buttons, light switches, toilet handles, counters, handrails, touch screen surfaces and keypads).
5. Records should include the name(s) of all the employee(s) who conducted cleaning & sanitization.

3.9 Pot Wash Area

3.9.1 Added Requirements:

1. Equipment must be sanitized with a chemical sanitizer. In the US, food facilities are required to use EPA-registered "sanitizer" products in their cleaning and sanitizing practices. The EPA has a list of disinfectants effective against COVID-19. **IMPORTANT**: Check the product label guidelines for if and where these disinfectant products are safe and recommended for use in food manufacturing areas or food establishments. https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
2. If using thermal sanitization, this must be combined with a detergent as the exact temperature threshold to destroy the COVID-19 is still unknown. The detergent must be used in sufficient quantity to emulsify.

3.10 Dishwashing Area

3.10.1 Added Requirements:

1. Equipment must be sanitized with a chemical sanitizer. In the US, food facilities are required to use EPA-registered "sanitizer" products in their cleaning and sanitizing practices. The EPA has a list of disinfectants effective against COVID-19. **IMPORTANT**: Check the product label guidelines for if and where these disinfectant products are safe and recommended for use in food manufacturing areas or food establishments). https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
2. If using thermal sanitization, this must be combined with a detergent as the exact temperature threshold to destroy the COVID-19 is still unknown. The detergent must be used in sufficient quantity to emulsify.

3.11 Sanitization of Food Contact Surfaces

3.11.1 Added Requirements:

1. If Food Contact Surfaces ("**FCS**") are not sanitized in the Pot Wash Area or the Dishwashing Area, they must be sanitized with a chemical sanitizer or via thermal sanitization with a detergent. In the US, food facilities are required to use EPA-registered "sanitizer" products in their cleaning and sanitizing practices. The EPA has a list of disinfectants effective against COVID-19. **IMPORTANT**: Check the product label guidelines for if and where these disinfectant products are safe and recommended for use in food manufacturing areas or food establishments). https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
2. If using thermal sanitization, this must be combined with a detergent as the exact temperature threshold to destroy the COVID-19 is still unknown. The detergent must used in sufficient quantity to emulsify.

3.12 Sanitization of Non-Food Contact Surfaces

3.12.1 Added Requirements:

1. The disinfectant used should be one for which the manufacturer claims antiviral activity, meaning it can kill the virus (such as chlorine-based disinfectants). The WHO and the EPA have developed recommendations.
2. When disinfecting for coronavirus, EPA recommends following the product label use directions for enveloped viruses, as indicated by the approved emerging viral pathogen claim on the master label. If the directions for use for viruses/ antiviral activity list different contact times or dilutions, use the longest contact time or most concentrated solution.

3.13 Cleanliness and Disinfection/Santization of Bulk Airline Equipment

3.13.1 Added Requirements:

1. The disinfectant used should be one for which the manufacturer claims antiviral activity, meaning it can kill the virus (such as chlorine-based disinfectants). The WHO and the EPA have developed recommendations.
2. When disinfecting for coronavirus, EPA recommends following the product label use directions for enveloped viruses, as indicated by the approved emerging viral pathogen claim on the master label. If the directions for use for viruses/ antiviral activity list different contact times or dilutions, use the longest contact time or most concentrated solution.
3. **All bulk airline & railway equipment must be sanitized upon being offloading from a conveyance and prior to uplift to another flight/train**. **(!) This is now mandatory even if trolleys are not visually soiled.**

3.14 Food Safety Controls of Potentially Hazardous Foods at Dispatch and Delivery

3.14.1 Added Requirements:

1. Alcohol gel sanitizer should be available in the dispatch truck for dispatchers.
2. Dispatchers should sanitize their hands prior to unloading the trolleys.
3. Dispatchers should practice transmission reduction measures when interacting with crew members (i.e. avoid shaking hands as a greeting).
4. Dispatchers should finish loading prior to passengers boarding (social distancing).
5. Records should include the name(s) of all the employee(s) who dispatched each flight.

3.15 Additional Precautionary Measures

3.15.1 Added Requirements – Social Distancing:

1. Arrange workstations so that employees are at least one meter apart. A physical barrier like a cubicle or Plexiglas window also works to increase distance between people.

   The WHO recommends 1 meter of distance, but CDC recommends 2 meters.

2. Stagger activities in time to limit the number of staff in a confined area during the same period.
3. Move activities to another room wherever possible. Separating duties into unused dining areas could be an option for some preparation and packaging.
4. Altering shift times to minimize the number of staff working in close quarters.
5. Using markings or dividers in the kitchen to ensure physical distancing.
6. If possible, stagger the times employees take breaks in common areas.

3.15.2 Added Requirements – Emergency Response Plan:

1. Develop a response plan in case someone at work develops symptoms of COVID-19.

2. Know what to so if a staff member or service provider tests positive for COVID-19 during or just after having been to work.

3. Consider how to identify persons who may be at risk, and support them, without inviting stigma and discrimination into the workplace. This could include persons who have recently travelled to an area reporting cases, or other personnel who have conditions that put them at higher risk of serious illness (e.g. diabetes, heart and lung disease, older age).

4. Establish risk assessments to include two elements: likelihood of occurrence and severity of occurrence. Consideration should be given to re-evaluating current risk assessments to determine whether they would be adequate to cover the coronavirus issues.

4. QSAI COVID-19 FOOD PROCESSING SAFETY ELECTRONIC AUDIT MODULE

In response to government-mandated and recommended initiatives by national and international health organizations to contain the spread of SARS-CoV-2 and COVID-19, many QSAI Airlines & Railway Operators have reduced their flight operations and temporary suspended routes. This has undoubted presented QSAI Inflight Catering Facilities with many challenges. Airlines, railway operators, inflight catering organizations, food suppliers and travelling passengers are not only struggling with the impact of this pandemic, but must now also diligently assess the new food safety risks that this virus creates for individuals and air/rail businesses.

To effectively control the exposure of SARS-CoV-2 and COVID-19, precautionary and control measures such as limitations on external visitors and increased requirements to ensure health, hygiene, and safety are needed by QSAI Inflight Catering Facilities.

Furthermore, QSAI Airlines & Railway Operators may have many questions, concern, and require reassurance that these added measures are in place to protect airline and railway operator crew and passengers from any risk presented by SARS-CoV-2 and COVID-19.

In response, MQ has developed a COVID-19 Food Processing Safety ("**FPS**") Electronic Audit ("**e-Audit**") Module to verify and evaluate these precautionary and control measures at QSAI Inflight Catering Facilities to address the challenges of COVID-19 in addition to overall food safety.

Specifically, the COVID-19 FPS e-Audit is designed to:

- Assess the use and effectiveness of precautionary measures used by QSAI Inflight Catering Facilities to minimize the risks of passenger and crew exposure to SARS-CoV-2 and COVID-19 and based on the new QSAI requirements;
- Assess QSAI Inflight Catering Facilities continued compliance with existing QSAI Food Processing Safety standards that not only demonstrate that facilities continue to maintain critical food safety risk management but that are also effective at minimizing the risk of passenger and crew exposure to SARS-CoV-9 and COVID-19;
- Support and educate inflight catering facilities on the risks of SARS-CoV-2 and COVID-19 and important precautionary and control measures to mitigate its exposure to the food processing environment, personnel, and thus to airlines & railway operators (i.e.: Crew & Passengers etc.).