International Organization for Standardization
Organisation internationale de normalisation
Международная организация по стандартизации

TMB Secretariat
Vote form
Number: 45/2020
Date: 2020-09-23

ISO TECHNICAL MANAGEMENT BOARD

SUBJECT

IWA on *Guidelines for cloud kitchen service*

BACKGROUND

In September 2020 the Standardization Administration of China (SAC) submitted a proposal to the TMB secretariat for the development of an ISO International Workshop Agreement (IWA) on *Guidelines for cloud kitchen service*.

SAC is willing to provide the secretariat for the development of this IWA.

Please find attached as annex:

- The ISO IWA Proposal form, including purpose and justification, and meeting plan
- The draft IWA "Guidelines for cloud kitchen service"

ACTION

The members of the Technical Management Board are invited to:

- Approve the proposal for an IWA on *Guidelines for cloud kitchen service*, and
- Allocate the secretariat to SAC (China).

By **21 October 2020**.

PROPOSAL FOR AN INTERNATIONAL WORKSHOP AGREEMENT

A proposal for an International Workshop Agreement (IWA) shall be submitted to the secretariat of the Technical Management Board at ISO/CS (tmb@iso.org). Proposals will be referred to the ISO Technical Management Board for approval (4-week ballot).

Once the proposal for the IWA is approved by the TMB, the proposer will be requested to prepare an announcement/invitation to the workshop, which will be circulated to the ISO members by ISO/CS. Please note that the announcement must be made at least 90 days in advance of the agreed date to allow potential attendees adequate time to plan on attending the workshop (Annex SI.3).

See the ISO Supplement Annex SI for full details of the Procedure for the development of IWAs.

Proposer
A proposal to hold an ISO workshop for the purpose of developing one or more IWAs on a particular subject may come from any source, including ISO member bodies, liaison organizations, corporate bodies, etc. An organization that is not an ISO member body or liaison organization, or is not international in scope, shall inform the ISO member body in the country of its intent to submit such a proposal.   SAC(China)
Contact details of the proposer   **Name:** Ms. WANG Xi   **Email:** ccpitwx@163.com
Title of the proposed IWA   Guidelines for cloud kitchen service

Purpose and justification:

The IWA document aims to:

- Provide a intensive management mode to ensure the catering enterprises resume business more quickly and at lower cost on the cloud kitchen；

- To help provide a detailed and operable "cloud kitchen service mode", improve the service capacity of the industry, and ensure the organizational resilience of catering enterprises;

- Strengthen the in-deep cooperation between cloud kitchen and food delivery platform;

- Promote digital and intelligent transformation of catering industry;

- Meet consumers' diversification and personalized catering consumption needs;

- Help to build a perfect takeout standard system.

Justification 1:

This IWA document is based on good practices from the catering industry of many countries in the world. With the rapid development of takeout market, cloud kitchen (also commonly known as "shared kitchen") is also riding on a growing curve. At present, many countries are actively exploring the new service type of cloud kitchen, including

- Panda Selected / Jike Alliance / Chomp Cloud (China),

- CloudKitchens / Virtual Kitchen Co / DoorDash(USA),

- Kitchens Centre / Zomato / Swiggy / Rebel Foods(India),

- Deliveroo Editions / Taster / Keatz(France),

- Deliveroo Editions / Taster / FoodStars(UK),

- Keat(Germany), Foodora/Just Eat(Canada),

- WeCooK(South Korea),

- Taster/Keatz(Spain),Dahmakan(Malaysia),

- Deliveroo Editions(Singapore)

- Kitopi(UAE),

- Cookpy / Re:Dine Ginza /Kitchen Base(Japan), and others

This shows that "cloud kitchen" will be accepted as a new service model rapidly in the world, and it will contribute to **SDG12-"Responsible Consumption and Production"** .

Justification 2:

Cloud kitchen made a significant contribution to the recovery of traditional catering industry. It provided an important guarantee for the resumption of production during the epidemic. Affected by the epidemic, Restaurants suffered huge losses. Cloud kitchen makes the traditional catering

enterprises turn to take out and cosequentially reduces the loss of restaurants. Actually cloud kitchen is more suitable for the fast pace living style and space. This IWA document is one part of catering industries reform and we are convinced that it will make the catering industry better meet consumer's needs on the time and space of eating.Therefore, this should be an improvement over the current situation, and adoption of cloud kitchen will be more liketly to enable us to achieve **SDG3 - "Health and Happiness".**

Justification 3:

The development and effective implementation of cloud kitchen requires new technology, new ideas and new methods, and the success of this will support the digital and intelligent transformation of the catering industry. This IWA document is also a guideline for sharing and cooperation among catering enterprises on cloud kitchen, and will, in our opinion, make catering enterprises more resilient and productive. New technology, new ideas and new methods will promote technological progress and social development, and contribute to **SDG11**-"***Sustainable Cities and Communities***".

Justification 4:

At the same time, the development and implementation of cloud kitchen will provide more convenient and low-cost business opportunities for SMEs, contribute to the inheritance of handicraft and cooking culture, and promote startups for young people, women and the elderly. The standardization of cloud kitchen will protect the interests of stakeholders on the cloud kitchen, but it will also improve the quality of sevices and opportunities and contribute to **SDG8** - "***Decent Work and Economic Growth***".

Does the proposed IWA relate to or impact on any existing work in ISO committees?

☐ Yes ■No

Please list any relevant documents and/or ISO committees

ISO/TC 34 Food products

ISO/TC 34/SC 17 Management systems for food safety

ISO/TC 283 Occupational health and safety

ISO/TC 324 Sharing economy

ISO/IEC/JTC1/SC 38 Cloud computing and distributed platforms

ISO 22000 Food safety management

ISO 45001 Occupational health and safety management systems

T/CCPITCSC 045-2020 Specification for cloud kitchen service, published by CCPIT Commercial Sub-council

T/CCPITCSC 036-2019 Food takeaway service - Specification for information description of food products, published by CCPIT Commercial Sub-council

T/CCPTICSC 007-2017 Specification for takeaway delivery service, published by CCPIT Commercial Sub-council

Relevant stakeholders (list of organizations that may be interested)

China (Panda Selected, Chomp Cloud,Jike alliance)

France (Deliveroo Editions, Taster,Keatz)

USA (CloudKitchens, Virtual Kitchen Co, DoorDash, Kitchen United, The Food Corridor, Commercial Kitchen 305, Zuul kitchen, Zume, REEF Technology, Sprig)

India (Kitchens Centre, Zomato, Swiggy, Rebel Foods, Box8, Freshmenu, WowMomo, Hoi Food, InnerChef, Faasos, Holachef)

United Kingdom (Deliveroo Editions, Taster, FoodStars)

Germany (Keatz)

Japan (Cookpy, Re:Dine Ginza, Kitchen Base)

Korea (WeCooK)

Canada (The Food Corridor)

Spain(Taster, Keatz)

Malaysia(Dahmakan)

Singapore(Deliveroo Editions)

United Arab Emirates（Kitopi）

Member body willing to act as secretariat

SAC(CHINA)

Number of meetings to be held (if more than one is envisaged) and proposed dates

1st Virtual Workshop (Jan, 2021)

2nd Virutal Workshop(Feb, 2021)

Annexes are included with this proposal (give details)

Click here to enter text.

INTERNATIONAL WORKSHOP AGREEMENT

IWA XX

First edition
2020-06

Guidelines for cloud kitchen service

I

INTRODUCTION

One of the key contributions of catering industry is to meet the growing needs of the consumers' face-paced lifestyles and, their aspirations for better life. However, the COVID-19 pandemic, which started at the beginning of 2020, is causing partial and sometimes complete shut-down of restaurants and food and beverage (F&B) outlets in many parts of the world. The catering industry arguably is one of the most affected industries; as traditional dine-in services provided by restaurants and F&B outlets, due to the shut-down, cannot function effectively, and this has forced many of them to focus more on online catering services. During this period, many business ideas and vocabularies evolved in the catering industry: such as "contactless delivery", "sharing employees" and "sharing kitchen" or "cloud kitchen". Among them, "cloud kitchen" is a more common business model of comprehensive operation of takeout catering virtual restaurants.

Different from the characteristics of rapid scale and subversion under the traditional "sharing economy" mode, "cloud kitchen" operator functions both as catering service providers and consultants. Under the impact of the pandemic, "cloud kitchen" business model is evolving as an excellent platform for traditional catering virtual restaurants to recover businesses and further integrate into online operation at lower cost and faster speed.

At the same time, the emergence of "cloud kitchen" also caused some supervision problems which are different from those faced by the traditional catering industry. For example, in the process of intensive catering operation, how to formulate industry operation standards such as sharing, transparency, equipment and facilities assembly line.

This document is writed for the above circumstances and it is committed to solving some supervision problems in "cloud kitchen" businesses. It is based on good practices implemented by the catering industry all the world.

This document is committed to implementing the United Nations **Sustainable Development Goals**: **SDG8**-*Decent Work and Economic Growth*", **SDG11**-"*Sustainable Cities and Communities*" and **SDG12**-"*Responsible Consumption and Production*".

CONTENTS

1   Scope

This document provides guidelines on terms, principles, processes and practices to be put in place in order to meet the quality and standard required of cloud kitchen service.

This document is applicable to catering industry.

NOTE Refer to Annex A for supplementary information on ISO standards.

2   Normative References

There are no normative references in this document.

3   Terms and Definitions

For the purposes of this document, the terms and definitions as outlined by the ISO and IEC sources apply:

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp
— IEC Electropedia: available at http://www.electropedia.org/

3.1

cloud kitchen

Provide centralized, standardized and digitized catering hardware and software supporting facilities and/or site resources for multiple virtual restaurants (3.3) to share resources for food, beverage and catering operations.

3.2

cloud kitchen operator

An enterprise that provides shared management hardware resources, supply chain supporting resources, management and consulting services for the settled virtual restaurants is also called an "operator".

3.3

virtual restaurant

The main bodies that carry out food business activities through cloud kitchens include individuals, enterprises and other organizations.

3.4

supplier

Organizations or individuals that provide raw materials, basic equipment, software services, logistics services and other services for cloud kitchen operators and virtual restaurants settled in.

3.5

service field

Sharing the infrastructure sites provided by the kitchen operator that can be operated by the tenants, including basic catering processing equipment, water, electricity and gas systems and other conditions necessary for the catering working environment.

4   Principles

4.1 Normative

Operators should provide standardized infrastructure and supporting services.

4.2 Safety

The operator should provide a safe and stable operating environment and network operating environment.

4.3 Compliance Level

The operator should comply with the relevant regulations of the state and the industry on food safety, fire safety, consumer rights and interests protection, network safety, environmental protection, etc.

4.4 non-neoplastic

The operator should create a centralized business environment for the settled virtual restaurants by providing resources and services such as venues, equipment and facilities.

4.5 High efficiency

Operators should improve the efficiency of shop opening, management and operation of virtual restaurants by providing integrated services such as venues, equipment and facilities, operation management and digital product development.

4.6 Environment-friendly product

Operators should realize resource conservation and environmental sustainable development by providing integrated, intelligent and green resources.

5   Service Process
5.1 Consumer Online Orders

Consumers can directly place an order on the cloud kitchen, which includes many virtual restaurants.

5.2 Virtual Restaurant Accepting Orders

Through the cloud kitchen, the virtual restaurant should accept the orders, prepare the foods according to the online information and contact the food delivery platform to get food delivery service.

5.3 Courier Picking Up Foods

Couriers should pick up the foods from the designated virtual restaurant and deliver the foods according to the order information on the food delivery platform.

5.4 Consumers Receiving Foods

After receiving the arrival information from the courier, the consumer will pick up the foods on the designated place. Then the service is completed.

NOTE: Annex B provides an example of cloud kitchen service process.

6   Range of Services

6.1 Information provision and review

6.1.1 The operator should formulate rules for the registration and use of the information system of the virtual restaurants to provide guidance for the virtual restaurants to obtain information such as operation and payment.

6.1.2 The operator should take necessary technical measures and other measures, and audit qualifications information of the virtual restaurants.

6.1.3 The operator should timely feedback the audit results to the settled virtual restaurants. If the audit fails, the operator should inform the reason and modification suggestions.

6.1.4 The operator should regularly organize the settled virtual restaurants and relevant personnel to carry out training in registration, information filling, information acquisition, information disclosure, laws and regulations, etc. to improve the level of legal and compliant operation.

6.1.5 The operator should strengthen the information management issued by the settled virtual restaurants and review the shop information and meal information of the virtual restaurants.

6.2 Training services

The operator should provide pre-occupancy training for the tenants and formulate different training programs according to the types of tenants, so as to improve the quality of tenants and make them meet the occupancy standards.

The operator should provide regular on-line and off-line training for the settled virtual restaurants to ensure the continuity and effectiveness of training and control the quality of food and service provided by the settled virtual restaurants.

6.3 Supply chain management

The operator should match the corresponding suppliers according to the needs of the settled virtual restaurants, control the suppliers' qualifications and provide food procurement services.

The operator should provide equipment procurement and allocation services for the settled virtual restaurants according to their needs, including new equipment, used equipment and customized equipment.

The operator should provide food packaging materials purchasing services to the virtual restaurants according to their needs. The selection criteria of packaging materials should conform to food safety and environmental protection standards or requirements.

6.4 Brand design and promotion

6.4.1 The operator should provide brand design services to the virtual restaurants who need to settle down, including but not limited to the following information:

一Guide design (door head, guide plate, stickers, device design, etc.);

一Information space graphic design (brand wall design, business information, wall menu, etc.);

一Food shooting.

6.4.2 The operator should provide publicity and design services for the virtual restaurants who need to settle down, including background maps, posters, hinges, logo design, basic visual identification design, packaging design, etc.

6.4.2 The operator should regularly or irregularly design promotional activities for the settled virtual restaurants.

6.5 Transaction services

The operator should establish an online payment system for the settled virtual restaurants, and the electronic payment service should be provided by banks or non-financial payment institutions with legal qualifications.

6.6 Supervision and assessment

6.6.1 The operator should establish a food safety inspection mechanism and equip it with corresponding equipment, and should require the virtual restaurants to set up a food sample retention system to monitor and analyze the quality of raw materials, semi-finished products, finished products and environmental sanitation of the virtual restaurants.

6.6.2 The operator should establish a regular inspection and irregular spot check system for the tenants, inspect the food hygiene, personal hygiene, cleanliness and other aspects of the tenants, and spot check the health certificates of the food practitioners of the tenants to ensure that they are valid and establish archives for good management.

6.6.3 The operator should establish an assessment mechanism for the settled virtual restaurants, and give rewards and punishments to the business behavior of the settled virtual restaurants.

6.7 logout mechanism

6.7.1 The operator should establish an exit mechanism for the settled virtual restaurants. If it meets the normal exit criteria, the operator should conduct exit settlement with the settled virtual restaurants.

6.7.2 The operator should compel the settled virtual restaurants who fail to comply with the contract or seriously violate the on-site operation standards to return.

6.8 Emergency management service

6.8.1 The emergency work of the operator should conform to the basic principles of people-oriented, prevention-oriented, unified command and timely response, and should combine self-rescue with social rescue.

6.8.2 The operator should establish an emergency plan system, including comprehensive plan, fire special emergency plan, food poisoning special emergency plan, emergency public health plan, mechanical injury disposal plan, etc.

6.8.3 The operator should provide emergency support services for the settled virtual restaurants, including but not limited to communication and information support, emergency team support, emergency materials and equipment support, technical support and logistics support, etc.

6.8.4 For emergency events caused by force majeure factors, the operator should take targeted measures to provide basic protection for the settled virtual restaurants.

7 Information Security and Protection

7.1 Information security

7.1.1 The operator should establish an information security management system and take effective security management and protection measures for the information managed by the operator and the information provided by the settled virtual restaurants.

7.1.2 The operator should take appropriate technical measures to properly preserve the information collected during the operation and take effective measures to ensure the accuracy, completeness and safety of the above information.

7.1.3 The storage time of the audit data and identity information submitted by the operators to the settled virtual restaurants should be not less than two years from the date of their last submission; The retention time of the financial payment and other information of the settled virtual restaurants should not be less than three years from the date of the transaction.

7.1.4 The operator should provide the settled virtual restaurants with the service of inquiring their own operation information within the storage period.

7.1.5 The operator should cooperate with the relevant work carried out by the competent department of information security according to law.

7.2 Protection of privileged information

7.2.1 The operator and virtual restaurants can fulfill their obligation to protect relevant information by formulating privacy policies and signing confidentiality agreements.

7.2.2 The scope of information protection generally includes the information of settled virtual restaurants, business data, product planning, strategic planning, operation strategy, system architecture, algorithm logic, software version, internal system, financial data, organizational structure, personnel information, internal image data, etc.

7.2.3 The operator may publish the information (except as otherwise provided by laws and regulations) with the consent of the settled virtual restaurants.

7.2.4 The operator should allow virtual restaurants to access and modify personal information, including correcting inaccurate information. Users should be allowed to cancel their accounts after the exiting of the settled virtual restaurants.

7.2.5 The operator should establish an emergency plan and mechanism for information security incidents.

8   Quality Control and Improvement

8.1 Service evaluation

8.1.1 The operator should provide online and offline service evaluation collection channels for the settled virtual restaurants, and the evaluation contents include but are not limited to the following information:

　—Rating the facilities, environment, management and services of the operator;

　—Other subjective opinions and suggestions of settled virtual restaurants.

8.1.2 The operator should provide effective channels for complaints and appeals to the tenants and protect the legitimate rights and interests of the tenants from infringement by the operator, other tenants and suppliers.

8.2 Giving Feedback

8.2.1 The operator should adopt or reject the evaluation content of the settled virtual restaurants, and should promptly inform the settled virtual restaurants of the processing results and explain the reasons.

8.2.2 The operator should regularly collect the feedback information of the settled virtual restaurants, so as to establish an effective solution mechanism for the problems reflected by the settled virtual restaurants.

Annex A

(informative)

Supplementary information on ISO standards

To understand the proper use of ISO standards that are written for guidance, it is highly recommended that users refer to http://www.iso.org/iso/foreword.html where relevant ISO directives, resolutions and their implications are presented.

Annex B

(Informative)

An Example of Service Process

The figure shows an example of cloud kitchen service process.