China - Peoples Republic of

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China Announces Revised Standards on Canned Food

Report Categories:
FAIRS Subject Report

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Report Highlights:

On September 4, 2015, China notified the WTO of the National Food Safety Standard on Canned Food (an update to GB 8950), issued by the National Health and Family Planning Commission (NHFPC), as SPS/N/CHN/995. The deadline for submission of final comments to China is November 3, 2015. This standard pertains to commercial sterilization canned food made of food material by means of processing and treatment, tinning, sealing, heat sterilization and cooling and other processes. The proposed date of entry is yet to be determined. Comments can be sent to China’s SPS Enquiry Point at sps@aqsq.gov.cn. The following report contains an unofficial translation of this draft measure.

Executive Summary:
On September 4, 2015, China notified the WTO of the National Food Safety Standard on Aquatic Products, issued by the National Health and Family Planning Commission (NHFPC), as SPS/N/CHN/995. The deadline for submission of final comments to China is November 3, 2015. This Standard will partially replace (GB 8950-1988) on Hygienic Specifications for Cannery. It pertains to commercial sterilization canned food made of food material by means of processing and treatment, tinning, sealing, heat sterilization and cooling and other processes. The proposed date of entry is yet to be determined. Comments can be sent to China’s SPS Enquiry Point at sps@aqsq.gov.cn. The following report contains an unofficial translation of this draft measure. In addition, interested parties are also welcomed to submit comments through the U.S. SPS Enquiry Point below so that comments can be considered as part of the U.S. Government official comment submission to the WTO:

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BEGIN TRANSLATION:

National Food Safety Standard

Code of Hygienic Practice for Canned Food

(Draft for comments)

Issued by National Health and Family Planning Commission of the People's Republic of China

Foreword

This national standard will replace GB 8950-1988 Hygienic Specifications of Cannery.

The standard has referred to and quoted the CAC/RCP23 Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods and CAC/RCP2 Recommended International Code of Hygienic Practice for Canned Fruit and Vegetable Products of Codex Alimentarius Commission.

In comparison with GB8950-1988, the main changes in this standard are as follows:

– The title was modified to Code of Hygienic Practice for Canned Food;

– The empty can was revised as the packaging container, including the relevant requirements for metal can, glass bottle, composite soft packaging bag, box, cup, bowl and bottle.

– The water supply system was subdivided and the regulations on water quality control and detection items
were specified for the enterprise whose water comes from the urban water distribution systems and the enterprise having self-contained water-source respectively.

- That the enterprise must develop the seal operating procedure was added in the sanitary control in processing; the relevant provisions of development of thermal-sterilization technological procedure were modified; and partial specific contents of the sterilizer and configuration were deleted.

- Relevant regulations were added on the quality of sterilization cooling water for which the different water sources and cooling methods were adopted.

- The technical requirements of sterilization safety evaluation procedure were added.

- That the sterilization equipment must be subject to heat distribution test was added.

National Food Safety Standard
Code of Hygienic Practice for Canned Food

1 Scope

This standard specifies the essential requirement and management rule for site, facility and personnel involved in raw materials procurement, processing, packaging, storage and transport and so on in canned food production process.

This standard is applicable to the canned food production.

2 Terms and Definitions

2.1 The terms and definitions given in GB14881-2013 are applicable to this standard.

2.2 Canned food

Commercial sterilization canned food made of food material by means of processing and treatment, tinning, sealing, heat sterilization and cooling and other processes.

2.3 Commercial sterilization

The state in which food contains neither pathogenic microorganism nor nonpathogenic microorganism capable of reproducing in food at normal temperature.

2.4 Sterilization procedure

The sterilization technical parameters and operating requirements through which the product can reach the commercial sterilization requirements under certain production conditions.

2.5 Residual chlorine (free residual chlorine)

Remaining chlorine existing in form of hypochlorous acid, hypochlorite or chloridion

2.6 Sterilization deviation

Any phenomenon of failure in meeting the thermal-sterilization technological procedure in thermal-sterilization
process.

2.7 Critical factor of thermal-sterilization

The slight variation in factors, e.g., product nature, characteristic, condition, form and other parameters directly impacting heat transfer, will affect the commercial sterilization effect, and these factors are the basis for development of sterilization procedure.

3 Site selection and plant environment

It shall meet the relevant regulations in chapter 3 of GB 14881-2013.

4 Factory building and workshop

It shall meet the relevant regulations in chapter 4 of GB 14881-2013.

5 Facility and equipment

5.1 It shall meet the relevant regulations in chapter 5 of GB 14881-2013.

5.2 Essential requirements

5.2.1 The equipment, conveyor belt, operating floor, transport vehicle, tool and instrument and vessel and so on contacting the food in the canned food processing workshop, shall be made of non-toxic, anticorrosive and easy cleaning material with smooth surface. It is forbidden to use the bamboo and wood tool and instrument and vessel.

5.2.2 The structure of all equipment, tools and instruments and the installation location of fixed equipment in canned food processing workshop shall be convenient for cleaning and disinfection.

5.2.3 The waste vessel and food vessel shall not be mixed mutually. The waste vessel shall be made of anticorrosive and easy cleaning material and have the obvious mark.

5.3 Water supply facility

5.3.1 The canned food production water shall meet the requirements of GB5749.

5.3.2 The canned food sterilization cooling water shall have a good quality and adequate flow. The one-time domestic drinking water meeting the requirements of GB 5749 can be used. If the non-centralized water or distribution system water is introduced into the pool, town and tank and other middle links or outer-circulation cooling is used, the chlorine shall be added and the residual chlorine content at cooling water outlet shall not be lower than 0.5mg/L. The cooling method is internal recycle requiring no addition of chlorine for sterilization.

5.4 Ventilation and temperature control device

5.4.1 The ventilation equipment shall be installed in the appropriate place in canned food processing workshop, to keep the air circulation in it. The process links generating a lot of steam or oil fume in the production process shall be relatively centralized and be provided with the ventilation equipment of adequate capacity or other effective treatment measures to exhaust them out of the workshop. The vent shall be provided with the anticorrosive mesh enclosure and be kept clean.

5.4.2 The temperature control device shall be installed in the canned food processing workshop according to the requirements of different product processing temperatures.

5.5 Sterilization equipment

5.5.1 The sterilization equipment shall meet the requirements of sterilization process; and the sterilizer shall meet the requirements of relevant national standard for pressure vessel.
5.5.2 The sterilization equipment shall be subject to heat distribution test after installation of sterilization equipment, to confirm the uniform heat distribution prior to commissioning; on the condition that the heat supply and transfer medium is smooth, the heat distribution test shall be carried out at least once three years; and in case of variation in equipment structure, pipeline, valve and procedure and so on or if necessary, the heat distribution test shall be carried out.

5.5.3 Sterilization subsidiary facility

5.5.3.1 Temperature indicating device: each sterilization equipment shall be equipped with at least one mercurial thermometer or other temperature indicating device for measuring the sterilization reference temperature.

The mercurial thermometer shall at least meet the following requirements: minimum scale of 0.5°C, the maximum scale range of 4°C per cm, and the mercurial thermometer shall be calibrated by the thermometer of known precision.

5.5.3.2 Temperature and time recording device

Each sterilization equipment shall be equipped with a set of temperature - and recording device. The indicated temperature of the device shall be consistent with that of the temperature indicating device; and if the deviation exists, the indicated temperature of the device shall neither be higher than the indicated temperature of the device nor be 0.5°C lower than the indicated temperature of temperature indicating device, with the maximum allowable minus deviation of 1°C; Moreover, the device shall be calibrated at least once a month.

5.5.3.3 Automatic steam controller

Each sterilization equipment shall be equipped with an automatic steam controller.

5.5.3.4 Pressure gage

A minimum of one pressure gage shall be installed on each sterilizer and the sterilizer’s safe working pressure shall be located at 2/3 of the full scale of the pressure gage. The dial plate shall have the minimum diameter of 100 mm, with 0.01MPa scale, and shall be calibrated at least once a year.

5.5.3.5 Safety valve

Each sterilizer shall be provided with an adjustable pressure relief valve to ensure the pressure vessel safety and shall be calibrated at least once a year.

6. Hygienic management

It shall meet the relevant regulations in chapter 6 of GB 14881-2013.

7 Food material, food additives and food-related product

It shall meet the relevant regulations in chapter 7 of GB 14881-2013.

8 Food safety control in production process

8.1 It shall meet the regulations in chapter 8 of GB 14881-2013.

8.2 Packaging container

8.2.1 Packaging container material, performance and storage

8.2.1.1 The packaging container shall have a good sealing performance and shall be resistant to chemical corrosion, machining and sterilization thermal stress impact, and the soft packaging container shall have no layering phenomenon.
8.2.1.2  The packaging container shall be stored in the ventilated, dry and dust-free and pollution-free warehouse.

8.2.2  Packaging container inspection

The enterprise shall conduct the inspection and acceptance of the packaging container according to relevant standards.

8.2.3  Packaging container cleaning and disinfection

8.2.3.1  The metal container shall be cleaned and disinfected properly prior to filling or tinning, e.g., place the container upside down and then wash or disinfect it by steam or water and then drain off the water.

8.2.3.2  The glass bottle shall be cleaned carefully to remove the broken glasses and other sundries.

8.2.3.3  The soft packaging container shall be cleaned inside and outside.

8.2.4  Use of packaging container

8.2.4.1  In no case can any article be placed in the packaging container in canned food processing workshop.

8.2.4.2  The effective measures shall be taken for the rigid packaging container during production and handling, to prevent the collision and damage to tank body and bottleneck and so on.

8.2.4.3  The soft packaging container shall be kept clean after being taken out from the outer packaging, to avoid the contamination.

8.3  Tinning or filling

Implement the product technological procedure strictly, control the maximum tinning volume, pH vale, top clearance and tinning temperature and so on and pay attention to the cleaning at the seal (especially for the soft canned food).

8.4  Sealing

8.4.1  The enterprise shall work out the seal operating procedures respectively according to the sealing equipment and vessel type. The temperature of content in sealed can and seal vacuum degree and so on shall be controlled according to the process requirement.

8.4.2  The sealing equipment shall be debugged prior to commissioning, to keep the good operating condition.

8.4.3  Sealing performance inspection

8.4.3.1  The sealing quality of sealing equipment shall be checked prior to startup each shift and it shall be qualified before put into production.

8.4.3.2  The appearance quality and sealing performance shall be controlled, detected and recorded in the production process according to the requirements of seal operating procedure.

8.4.3.3  The seal operator and inspector must receive the technical training before working.

8.5  Thermal-sterilization

8.5.1  Sterilization procedure

8.5.1.1  The sterilization procedure shall be developed and verified by the technical personnel with rich professional knowledge of the enterprises’ technical or development department or the qualified technology company in a scientific way, to ensure the conformity to the requirements of commercial sterilization.
8.5.1.2 When the sterilization procedure is developed, consideration shall be given to at least the following critical factors:

Sterilizer category, food characteristic, can vessel type and size, technical conditions and hygienic conditions, water activity, minimum initial temperature and critical factor, etc.

8.5.1.3 The influence on sterilization effect due to any change in product technological condition shall be analyzed and evaluated; and if the original sterilization technology is found as inappropriate, the sterilization procedure shall be developed again.

8.5.2 Sterilization operation

8.5.2.1 Sterilization operator shall be subject to technical training prior to working.

8.5.2.2 The sterilization operation technological procedure shall be implemented strictly, to prevent the sterilization deviation as far as possible.

8.5.2.3 Cooling

Cooling shall be carried out in a strict accordance with the sterilization technology; if the backpressure cooling is adopted, the depressurizing rate shall be stable and slow according to the theory of balanced tank inside pressure and tank outside pressure; the metal can shall be protected against shrunkening and convex corner; and the temperature difference inside and outside of the glass bottle shall be controlled to prevent the blow-off and bottle breakage, until the center temperature in vessel reduces to 40℃ or below.

8.5.3 Sterilization safety evaluation and management

8.5.3.1 The enterprise shall develop the sterilization safety evaluation and management procedure and propose the corrective scheme of various products.

8.5.3.2 Disposal of sterilization deviation

Any deviation found out in sterilization process, shall be reported to the enterprise’s technical director immediately and shall be corrected according to the corrective scheme; moreover, the product shall be separated, the cause shall be found out and the corrective measures shall b proposed.

The separated product shall be evaluated, according the evaluation procedure, to judge whether the batch of product is harmful to the consumers' health. If the batch of product is judged as failed to meet the commercial sterilization requirements, the product shall be sterilized again completely or be disposed properly under the strict supervision. The adopted judgment process, judgment result and disposal method shall be recorded in details.

9 Inspection

It shall meet the relevant regulations in chapter 9 of GB 14881-2013.

10 Storage and Transport

It shall meet the relevant regulations in chapter 10 of GB 14881-2013.

11 Product Recall Management

It shall meet the relevant regulations in chapter 11 of GB 14881-2013.

12 Training

It shall meet the relevant regulations in chapter 12 of GB 14881-2013.
13 Management system and personnel
   It shall meet the relevant regulations in chapter 13 of GB 14881-2013.

14 Record and document management
   It shall meet the relevant regulations in chapter 14 of GB 14881-2013.