

## Microorganism Test for the Slaughter House

(Related to Article 9 and 18)

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### 1. Purpose

The Purpose of the inspection is to verify whether HACCP is effectively operating in slaughterhouse in accordance with Article 9 of 「the Livestock Products Sanitation Control Act」 and Article 8 and 14 of this Notice.

### 2. Scope

Tests indicated in this document apply to slaughterhouses.

### 3. Items for Microorganism Test

Applied microorganism tests for Slaughterhouse are for E. Coli (*Escherichia coli* Biotype I ) and Salmonella (*Salmonella* spp.).

### 4. Testing Subject

- a. Slaughterhouse operators should conduct E. Coli (*Escherichia coli* Biotype I ) tests on meat processed at the slaughterhouse.
- b. City Major or Provincial Governors have their livestock sanitation inspection agencies pursuant to Article 15 of the 「Enforcement Regulations of the Livestock Sanitation Management Act」 , Article 2-12, to conduct Salmonella(*Salmonella* spp.) screening for meat processed at each slaughterhouse.

## 5. Inspection Cycle

The microorganism test is carried out by taking one sample per 300 cattle, 1,000 pigs, and 22,000 chicken and ducks. If the case-load of slaughterhouse is less than recommended sample size, at least one sample is collected for each breeding per week and inspected.

## 6. Sampling and Inspection Method

Sampling and Inspection should adhere to according to the Article 4, paragrape 2 of 「Livestock products Sanitation Act」 and Article 3 of Livestock product test method No. 9 of 「the Livestock processing standards and Specification」 .

## 7. Standards of Microorganism inspection

A. The Standard of evaluation of E.Coli is as follows.

Slaughter house	(a) Accpetable Standard (CFU/cm <sup>2</sup> ,mℓ)	(b) Max. Allowable Limit (CFU/cm <sup>2</sup> ,mℓ)	E.Coli Count Evaluation Criteria	
			# of inspection sample	Max. number of allowable samples between (a) and(b)
Cattle	Under 5	100	13	3
Pigs	Under 10	10,000	13	3
Chicken • Duck	Under 100	1,000	13	3

B. The Standard of evaluation of Salmonella is as follows.

Slaughterhouse	Detectio allowance for Salmonella		Detection rate (Annual)
	#. of sample	Max. allowable detection sample	
Cattle	26	1	within 2.5%
Pigs	26	2	within 7%
Chicken • Duck	26	5	within 18%

## 8. Evaluation Criteria for inspection result

- A. The head of the livestock sanitation inspection agency ( hereinafter referred as ‘head of agency’) shall determine whether the microbial inspection practice criteria are met in accordance with “7. Standard of Microorganism Inspection” whenever the results of the microbiological inspection of the slaughterhouse are available.
- B. Evaluation Criteria for *E. Coli* count are as follows.
- 1) If the number of *E. coli* exceeds the maximum allowable limit in one or more of the last 13 tests, it is evaluated as fail.
  - 2) If the number of sample exceeding the acceptable standard and below the maximum allowable limit during the last 13 tests exceeds 3, it is considered fail.
- C. For *Salmonella* test: if *Salmonella* is detected more than once in cattle, twice for Pigs, and more than 5 times in Chicken/Duck out of the last 26 samples collected, it is considered as fail. However, if the detection rate of *Salmonella* in a slaughterhouse exceeds 2.5% for cattles, 7% for pigs, and 18% for chicken and ducks, it is considered as unsuitable.
- D. If received “Failed” report from both *E. Coli* and *Salmonella* test, it is considered as one failed test.

## 9. Inspection Record

Business owner of slaughterhouse that have conducted microorganism inspections in accordance with this document and the head of inspection agency should prepare records related to inspection and keep them for 2 years from the date of final publication.

## 10. Follow-ups for inspection results

- A. If the business owner of the slaughterhouse does not agree with the *E. Coli* test or *Salmonella* test result notified by the head of the inspection agency, the root-cause investigation shall be promptly initiated and appropriate corrective action shall be taken.
- B. Slaughterhouse Operator should re-evaluate, amend, and supplement the current HACCP plan if there is second failed test result within 1 year of the first failed test.
- C. The head of the inspection agency shall report the details to the City major or Provincial governor if the result of the *Salmonella* test is found to be inadequate, followed by immediate notification to the operator of the relevant slaughterhouse.
- D. After receiving notification of “Fail” with *Salmonella* test from the head of the inspection agency, the slaughterhouse operator should take appropriate measures to prevent *Salmonella* recontamination, such as root-cause analysis, corrective action, and review of the HACCP plan. Plan of correction must be submitted to the City major, Provincial Governor and to the head of inspection agency in the jurisdiction within one week from the completion date.
- E. For the slaughterhouse tht have been evaluated to be ‘fail’ for 2 consecutive tests or more than 3 times in one year period according to this inspection method, the city major or provincial governor should make external experts and the HACCP team of the slaughterhouse to review the slaughterhouse’s HACCP plan. In

addition, it is necessary to take appropriate corrective actions such as modification and supplementation of the facilities, and take administrative measures in accordance with Article 27 of 「the Livestock Sanitation Control Act」 .

## 11. Notification of Inspection Results (Report)

- A. The head of the sanitary inspection agency of the city or province shall report(notify) the results of the microorganism inspection according to the method recommended to City Major, Provincial Governor and the relevant slaughterhouse on a monthly basis. However, if *Salmonella* is detected in the test sample, the result should be notified immediately to the city major, provincial governor and the relevant slaughterhouse.
- B. The city major or Provincial Governor should report (notify) the results of microorganism test and corrective actions of the failed evaluation to the Minister of the Ministry of Agriculture, Forestry and Livestock quarantine on a quarterly basis.

☐ Test result of *E. Coli* and *Salmonella*

Business	Applied Breed	<i>E. Coli</i>					<i>Salmonella</i>			
		# of inspection samples	# of sample below the allowable standard	# sample between acceptable standard to Max. allowable limit	# of sample exceeding the max. allowable limit	Failed test out of the last 13 inspection	# of sample	# of sample detected	# of failed sample out of recent 26 inspection	Detection rate (%)

☐ Corrective Action of non-conformed slaughterhouse

Business name	Non-conformed Items	Corrective Action	Remarks