



首相官邸

Measures against Beef which Exceeds the Provisional Regulation Values of Radioactive Cesium by the Government to Restore Safety of Beef

July 22, 2011

Government of Japan

Contents

1. Executive Summary

2. Chronological Order of Guidance

3. Measures Taken by the Government

(1) Shipment Restriction of Beef Cattle in Fukushima Prefecture

(2) Surveillance of Distribution and Public Announcement of Individual Identification Numbers

(3) Requirements for Withdrawing Shipment Restriction

(4) Situations in Neighboring Prefectures

(5) Thorough Guidance on Feeding

4. Safety of Beef

1. Executive Summary

The causes of the case are:

- Rice straw left in paddy fields after the harvest was contaminated by radioactive nuclides from the TEPCO's Fukushima Daiichi Nuclear Power Plant;**
- The rice straw was fed to beef cattle; and**
- Radioactive cesium which exceeds the provisional regulation values provided by the Food Sanitation Act was detected in beef.**

2. Chronological Order of Guidance

- 1. Considering the fact that a huge amount of radioactive nuclides were spilled out due to hydrogen explosions immediately after the nuclear power plant accident, the Government notified:**
 - a. on March 19th: the neighboring prefectures of the precautions on feed, water and feedlot which referred that those feed harvested and kept indoors before the nuclear accident should be used;**

2. Chronological Order of Guidance

- b. on April 14th: the guideline values of radionuclides in coarse feed so that meat and milk meet the provisional regulation values provided by the Food Sanitation Act; and**
- c. on April 22nd: a guideline on the production and utilization of feed which take into account the guideline values of radionuclides in coarse feed.**

Note:

Rice straw is more likely to be affected by radioactive nuclides falling down than growing feed crop which extends longitudinally, because it is laid down on the ground and the surface area is larger.

3. Measures Taken by the Government

(1) Shipment Restriction on Beef Cattle in Fukushima Prefecture

The Government instructed the Governor of Fukushima Prefecture to refrain from shipping all beef cattle in Fukushima Prefecture to slaughter houses on July 19th

- Responding to the cases in which beef with radioactive cesium that exceeded the provisional regulation values provided by the Food Sanitation Act were reported in three municipalities.
- It turned out that the beef cattle in question were fed with rice straw that was left in rice paddies after the nuclear accident.

(2) Surveillance of Distribution and Public Announcement of Individual Identification Numbers

- The Ministry of Health, Labour and Welfare requested the relevant local governments to conduct surveys on distribution channels, in order to ensure that beef that does not meet the provisional regulation values will not be in the market.**
- All the individual identification numbers are publicly announced. Food business operators are asked to provide distribution information. Specimens which correspond to the individual identification numbers will be collected and immediately tested.**
- Beef that exceeds the provisional regulation values will be immediately collected after found in the market.**

(3) Requirements for Withdrawing Shipment Restrictions

Applications for the partial withdrawal of shipment restriction from Fukushima Prefecture will be approved, if the appropriate feeding control and rational system to ensure safety of beef by testing are established after the instruction of shipment restriction.

- (1) In the Planned Evacuation Zones, the Emergency Evacuation Preparation Zones and other specifically designated areas, all cattle will be subject to testing. Only beef which contains radioactive cesium of which level is below the provisional regulation values will be approved for shipment**
- (2) In the areas in Fukushima other than (1), all livestock farms will be subject to testing, in which at least one head of cattle will be tested each farm at the first shipment. Only farmers which passed the testing with the levels well below the provisional regulation values will be allow to ship their cattle. The farmers will be subject to regular testing after the approval.**

(4) Situations in Neighboring Prefectures

In prefectures neighboring Fukushima,

- Farmers are thoroughly instructed to take appropriate feeding system, including not to use rice straw which may be contaminated; and**
- Testing of beef is strengthened, as necessary.**

(5) Thorough Guidance on Feeding

The Government has been providing:

- the neighboring prefectures with thorough instruction on the precautions on feed, water and feedlot; and**
- livestock farmers with instruction to keep concentrated feed in an appropriate manner.**

4. Safety of beef cattle

Major regulation values / standards

Provisional regulation values

- Definition: These figures are based on the values announced by the International Commission on Radiological Protection (ICRP) in 1984 as the levels that should be ensured as a means of protecting the public from radiation. The Nuclear Safety Commission indicated, for example, the index for radioactive iodine which was derived for all food products divided into five categories (1. water, 2. milk and milk products, 3. vegetables, 4. grains, and 5. meat, egg, fish and other) and Ministry of Health, Labour and Welfare established the provisional regulation values.
- Provisional regulation values: **500Bq/kg** (radioactive cesium)

ICRP standards

- Definition: The ICRP set upper limits on radiation volumes that are thought to be necessary levels to protect the public from exposure to radiation.
- Value: The upper limits is **50mSv/year**, and the limits level that is considered to not warrant countermeasures is set at **5mSv/year**
 - the limit for individual internal organs is set at 50mSv/year

* Reference: "Q&As concerning food and radiation" (Consumer Affairs Agency; only available in Japanese)

Effect of eating 1kg of beef, in which 500Bq of radioactive cesium has been detected (Ref)

The effect on the human body of eating 1kg of beef in which 500Bq (provisional regulation value under the Food Sanitation Act) of radioactive cesium (assuming that cesium 134 and 137 are equally mixed) has been detected, is as follows:

$$0.008 \text{ mSv} = 250 \times 1.3 \times 10^{-5} + 250 \times 1.9 \times 10^{-5}$$

* Ref: Food Safety Commission website

(Reference)

- Excluding the impact of the recent nuclear power station incident, the effect of 0.008mSv on the human body is approximately 1/50th of the annual effective dose (approx. 0.4 mSv average in Japan) from naturally occurring radioactive material (radioactive potassium, etc.) through food intake excluding the impact of the recent nuclear power station incident. (It is also approximately 1/13th of effect of radiation on the human body due to a one-way flight from Tokyo to New York (approx. 0.1mSv).
- (The effect on the human body of eating 1kg of beef in which 4,350Bq (in excess of provisional regulation value under the Food Sanitation Act) of radioactive cesium has been detected (assuming that cesium 134 and 137 are equally mixed), is as follows:

$$2,175 \times 1.3 \times 10^{-5} + 2,175 \times 1.9 \times 10^{-5} = 0.07 \text{ mSv}$$

Even if food is consumed on a temporary basis that exceeds the provisional regulation values, there will be no effect on human health

Reference: Beef that exceeds the provisional regulation values (as of July 20)

Cesium 134

Cesium 137

暫定規制値超過						検査結果(Bq/kg)		
個体識別番号	と畜月日	出荷先と畜場名	実施主体	放射性物質検査		セシウム-134	セシウム-137	合計
				検査機関	公表日			
12526-29391	5月9日	東京都立芝浦と場	東京都	東京都健康安全研究センター	7月16日		670	
12439-30437	5月25日	東京都立芝浦と場	船橋市	国立保健医療科学院	7月19日		719	
11801-99515	5月25日	東京都立芝浦と場	東京都	東京都健康安全研究センター	7月17日		680	
12519-99570	5月21日	東京都立芝浦と場	東京都	東京都健康安全研究センター	7月16日		610	
08364-06595	5月21日	東京都立芝浦と場	埼玉県	埼玉県衛生研究所	7月16日	1000	1100	2100
11655-05614	5月11日	(株)千葉県食肉公社	青森県	—	7月16日	490	560	1050
11753-47112	5月11日	(株)千葉県食肉公社	香川県	香川県環境保健研究センター	7月17日	353	301	654
10651-75139	6月15日	仙台市ミートプラント	岐阜県	岐阜県保健環境研究所	7月16日		630	
			山梨県	山梨県衛生環境研究所	7月16日		680	
10650-62033	6月15日	仙台市ミートプラント	西宮市	神戸検疫所	7月18日		644	
10355-21300	7月6日	仙台市ミートプラント	東京都	東京都健康安全研究センター	7月15日		650	
11627-98200	7月6日	仙台市ミートプラント	山形県	福島県原子力センター	7月15日		694	
08365-02723	6月7日	東京都立芝浦と場	東京都	東京都健康安全研究センター	7月17日		2300	

* Ref: MHLW website “Results of study on distribution of beef shipped from specific farms in Fukushima Prefecture (6th Report) (relating to the incident at the Fukushima Daiichi Nuclear Power Station of Tokyo Electric Power Company)”