

*Food Safety Control and
Environmental Hygiene in the US and the UK*

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EXECUTIVE SUMMARY

1. There are a number of systems designed for food safety control and environmental hygiene. One of the most influential is the Hazard Analysis and Critical Control Points system which aims to identify the principal food hazards in the food processing flow and to develop measures for their control.
2. In the US, the responsibilities for ensuring food safety and environmental hygiene are shared among six agencies grouped under two Cabinet Secretaries and the President's Executive Office. In the UK, the above responsibilities are spread among several government departments, local authorities (LAs) and a number of other bodies.
3. The UK government proposed in January 1998 to set up a Food Standards Agency (FSA) to take over the responsibilities from the Ministry of Agriculture, Fisheries and Food and the Department of Health for all food safety issues. The FSA would co-ordinate and monitor the enforcement of food law by LAs and would be accountable to Parliament through Health Ministers.
4. In the US, President Clinton announced in January 1997 a five-point plan to strengthen and improve food safety. The plan includes provisions to improve inspections; to increase research; to build a national wide early warning system; to establish a national education campaign; and to strengthen co-ordination among agencies.
5. In the US, cases of foodborne disease are reported to local and State health departments and the Centers for Disease Control and Prevention. Federal agencies will then work with State and local health and agricultural authorities to investigate and implement the control measures. The UK government operates several systems to detect food poisoning. Responsibility for the management of foodborne disease falls jointly to LAs and local health authorities.
6. Findings in the US and the UK food safety control systems show that the two governments adopt a similar approach to tackle the problem of co-ordination and fragmentation of services. They assign the responsibility to a single body. In addition, both governments give well defined terms of reference to their agencies. They also operate an efficient communication system which reaches all involved parties. Both the US and the UK governments consult their respective advisory committees on food safety issues to ensure the interests of various sectors are represented. They also organize various training and educational programmes for the industry and the public to increase their awareness on food safety and environmental hygiene. Both governments also impose a stringent control on imported food: they apply the same standards of food safety to domestic and imported food products. Both governments acknowledge the importance of a consistent food law enforcement standard.

Acronyms / Abbreviations

ACMSF	Advisory Committee on the Microbiological Safety of Food, UK
ACNFP	Advisory Committee on Novel Foods and Processes, UK
ACP	Advisory Committee on Pesticides, UK
ADAS	Agricultural Advisory Service, UK
ARS	Agricultural Research Service, US
ASC	Assured Safe Catering
Advisory Council	Advisory Council on Food and Environmental Hygiene, HK
BSE	Bovine Spongiform Encephalopathy
CAC	Codex Alimentarius Commission
CAMO	Chief Administrative Medical Officer
CCDC	Consultant in Communicable Disease Control, UK
CCPs	Critical Control Points
CDC	Centers for Disease Control and Prevention, US
CDRH	Centre for Devices and Radiological Health, US
CDSC	Communicable Disease Surveillance Center, UK
CEFAS	Centre for Environment, Fisheries and Aquaculture Science, UK
CFSAN	Centre for Food Safety and Applied Nutrition, US
CJD	Creutzfeldt-Jakob Disease
COMA	Committee on Medical Aspects of Food and Nutrition Policy, UK
COMARE	Committee on Medical Aspects of Radiation in the Environment, UK
COT	Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment, UK
CSL	Central Science Laboratory, UK
CSREES	Cooperative State Research, Education, and Extension Service, US
DANI	Department of Agriculture for Northern Ireland
DETR	Department of Environment, Transport and the Regions, UK
DFEH	Department of Food and Environmental Hygiene, HK
DH	Department of Health, UK
DHHK	Department of Health, Hong Kong
DHSS	Department of Health and Social Services, Northern Ireland
EA	Environmental Agency, UK
EC	European Community
EFB	Environment and Food Bureau, HK
EHOs	Environmental Health Officers
EP	European Parliament
EPA	Environmental Protection Agency, US
EPINET	Epidemiology Communication and Information Network
FAC	Food Advisory Committee, UK
FDA	Food and Drug Administration, US
FoodNet	Foodborne Disease Active Surveillance Network
FORCG	Food Outbreak Response Co-ordinating Group
FRCA	Farming and Rural Conservation Agency, UK
FSA	Food Standards Agency, UK
FSIS	Food Safety and Inspection Service, US

GMPs	Good Manufacturing Practices
HACCP	Hazard Analysis and Critical Control Points
HHS	Department of Health and Human Services, US
IB	Intervention Board, UK
JFSSG	Joint Food Safety and Standards Group, UK
LAs	Local Authorities
LACOTS	Local Authorities Co-ordinating Body on Food and Trading Standards, UK
LegCo	Legislative Council
MAFF	Ministry of Agriculture, Fisheries and Food, UK
MHS	Meat Hygiene Service, UK
MOU	Memorandum of Understanding
NACMCF	National Advisory Committee on Microbiological Criteria for Foods, US
NDWAC	National Drinking Water Advisory Council, US
NFSI	National Food Safety Initiative
NHS	National Health Service, UK
NPDWR	National Primary Drinking Water Regulation
NPR	National Performance Review
NSDWR	National Secondary Drinking Water Regulation
OCG	Outbreak Control Group, UK
OIE	Office Internationale des Epizooties
OMB	Office of Management and Budget, US
PHAs	Port Health Authorities, UK
PHLS	Public Health Laboratory Service, UK
PSD	Pesticides Safety Directorate, UK
RLSD	Research and Library Services Division
SCIEH	Scottish Centre for Infection and Environmental Health
SEAC	Spongiform Encephalopathy Advisory Committee, UK
SIG	Special Investigation Group on H5N1 Influenza, HK
SSOPs	Sanitation Standard Operating Procedures
TSOs	Trading Standards Officers
UK	United Kingdom
US	United States
USDA	United States Department of Agriculture
VLA	Veterinary Laboratories Agency, UK
VMD	Veterinary Medicines Directorate, UK
VPC	Veterinary Products Committee, UK
WB	Works Bureau, HK
WHO	World Health Organization

FOOD SAFETY CONTROL AND ENVIRONMENTAL HYGIENE IN THE US AND THE UK

PART 1 - INTRODUCTION

1. Background

1.1 The Research and Library Services Division (RLS) of the Legislative Council (LegCo) Secretariat was requested by the Joint Panels on Health Services, Environmental Affairs and Constitutional Affairs to conduct a research on food safety control and environmental hygiene in Hong Kong and in overseas countries including the United States (US), the United Kingdom (UK), Japan and Singapore. Although the RLS has sent letters to the governments of these countries requesting information about this subject, as of to date, RLS has not yet received any official response from the central governments of Japan and Singapore. Thus, the RLS can only focus the discussion on the systems in the US and the UK.

2. Objective and Scope

2.1 The objective of this research is to study the systems for implementing food safety control and environmental hygiene in the US and the UK.

2.2 The scope of this research is as follows:

- describe the food safety control and environmental hygiene system in the US and the UK;
- describe the relationship between the authorities and advisory bodies relating to food safety control and environmental hygiene in the US and the UK;
- describe and analyze the mechanism of implementing food safety control and environmental hygiene in the US and the UK; and
- discuss the management of outbreak of foodborne disease in these two countries.

3. Methodology

3.1 This study involves a combination of information collection, internet search, literature review and analysis, correspondence with the US and the UK authorities and attending food safety related seminars in Hong Kong. Interviews were also conducted with academics and experts on this subject in Hong Kong.

3.2 Much of the information contained in this research report is drawn from the Food and Drug Administration (FDA) of the US Department of Health and Human Services (HHS), the US Environmental Protection Agency (EPA), the US Department of Agriculture (USDA), the UK Ministry of Agriculture, Fisheries and Food (MAFF), the UK Department of Health (DH), the Scottish Office and other relevant institutions. Letters were also sent to these authorities to obtain the necessary information and statistics. Interviews were held with prefectural government official of Japan, academics and importers of Hong Kong.

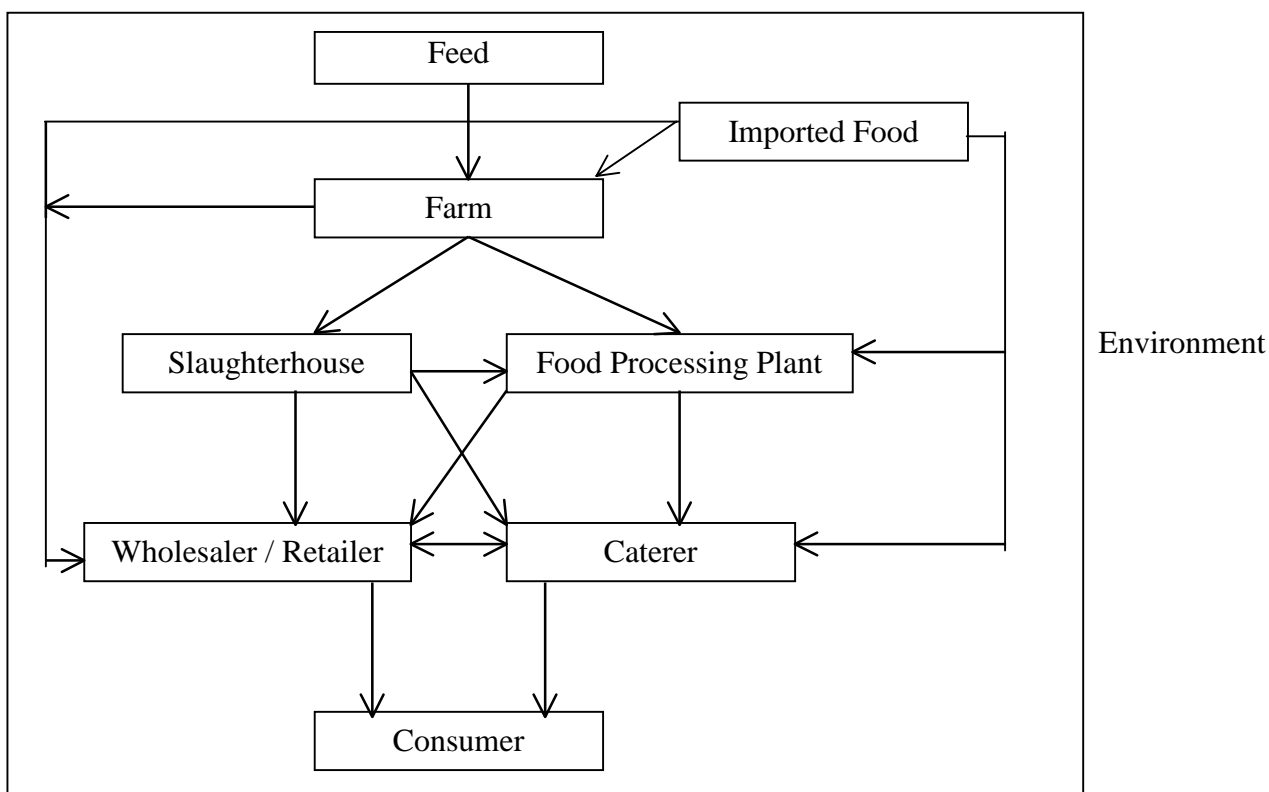
3.3 This research report is based on the information obtained from these sources.

PART 2 - COVERAGE OF FOOD SAFETY CONTROL AND ENVIRONMENTAL HYGIENE

4. Definition of Food

4.1 Food has a wide meaning. It refers to “any substance that people or animal eat or drink, or that plant absorbs, to maintain life and growth”¹ or “whatever is eaten by animals or absorbed by plants as nutrient; something that sustains, nourishes, and augments”.² It includes live animals, birds or fish or anything taken for human consumption. It also includes fodder and feed for animals, birds or fish. The definition of food contained in the Food Safety Act of the UK even covers substances not ingested, e.g. chewing gum (Section 1(1)(c) of the Food Safety Act) and substances which are not nourishing, e.g. food additives (Section 1(1)(b) and (d) of the Food Safety Act). Food virtually covers everything taken by the mouth. Please refer to Figure 1 for the food chain.

Figure 1 - The Food Chain



¹ Hornby, *Oxford Advanced Learners' Dictionary of Current English*, fifth edition, Oxford University Press, 1995, p.457.

² Stranks and Bernstein, *Food Safety Law and Practice*, first edition, FT Law & Tax, 1996, p.6.

4.2 Food safety and environmental hygiene is inseparable. The ultimate aim of both is to improve the quality of life. Environmental hygiene refers to the condition in the routes, e.g. air, soil and water, by which livestock, crops and their food products may become contaminated. For example, in order to ensure that there is clean and wholesome food on the dining table, clean markets, clean restaurants or clean supermarkets are a must. It is also necessary to check on the process of production at source, the preparation of food, its storage and transport to ensure that the food is safe to consume. In short, without a hygienic environment, food safety cannot be guaranteed as food has to pass through different stages of the food chain before it arrives at the point of being consumed.

4.3 There are a number of systems designed for food safety control and environmental hygiene. The following four systems have been adopted by many food businesses: the Hazard Analysis and Critical Control Points (HACCP) system, the Assured Safe Catering (ASC) system, the Good Manufacturing Practices (GMPs) and the Sanitation Standard Operating Procedures (SSOPs).

5. Food Safety Control System: Hazard Analysis and Critical Control Points (HACCP)

Introduction

5.1 The HACCP system was first discussed at the 1971 National Conference on Food Protection in the UK. However, it was not until 1985 that the HACCP system was seriously considered for broad application in the food industry³ owing to the perceivably high cost of its implementation and the relatively low hygiene awareness of the people in the food trade.

5.2 HACCP is a system that identifies specific biological, chemical and physical hazards which may adversely affect food safety and develops measures for their control.⁴ It involves a systematic study of the ingredients, the food product, and the conditions of processing, handling, storage, packaging, distribution and consumption. It aims to identify in the food processing flow the sensitive areas which might contribute to a hazard.⁵

³ Pierson and Corlett (eds.), HACCP: Principles and Applications, Chapman & Hall, 1992, p.4.

⁴ Stranks and Bernstein, Food Safety Law and Practice, first edition, FT Law & Tax, 1996, p.158.

⁵ Pierson and Corlett (eds.), HACCP: Principles and Applications, Chapman & Hall, 1992, p.2.

Principles

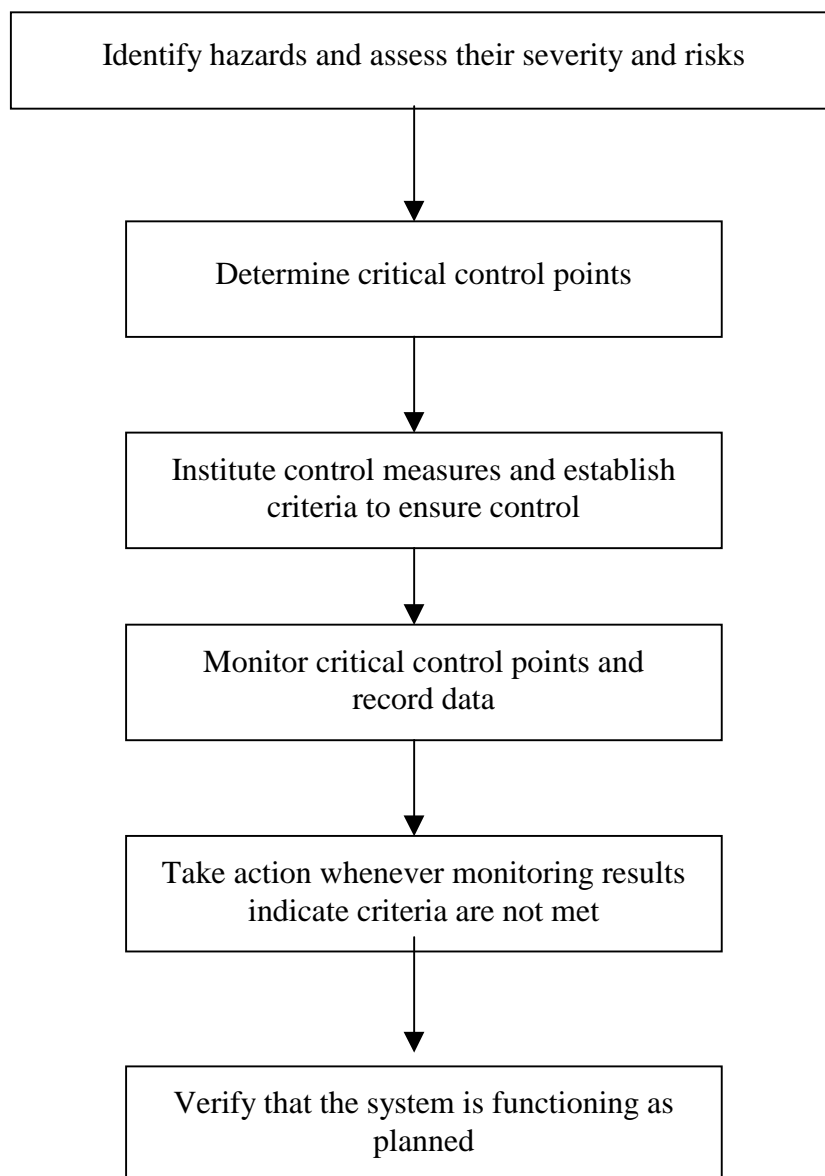
5.3 The principles of the implementation of HACCP are summarized as follows:⁶

1. identify the principal food hazards, the risks arising from these hazards and the probability of their occurrence (hazard analysis);
2. determine the points, procedures and operational steps that can be controlled to eliminate the hazard or minimize the likelihood of its occurrence (critical control points);
3. establish critical limits to ensure that the critical control points (CCPs) are under control;
4. establish a monitoring system to ensure the control of the CCPs;
5. establish corrective action to be taken when a CCP is not under control;
6. establish procedures for verification, including supplementary tests to confirm that HACCP is working effectively; and
7. establish all the procedures and records appropriate to the principles of HACCP and their application.

5.4 Figure 2 depicts the mechanism of HACCP.

⁶ Stranks and Bernstein, Food Safety Law and Practice, first edition, FT Law & Tax, 1996, p.158.

Figure 2 - The HACCP System



Source: Stranks and Bernstein, Food Safety Law and Practice, first edition, FT Law & Tax, 1996, p. 159.

Role of Government

5.5 It is suggested that the role of government in HACCP should be to verify that the food businesses are assuming their responsibility. It should define in law the businesses' basic food safety obligation, establish food safety performance standards and sound public health policy and provide accountability for businesses to meet those standards through appropriate supervision and enforcement.⁷

Advantages of HACCP

5.6 The advantages of the HACCP system are numerous. It is systematic as all potential hazards are identified; problems are foreseen and forestalled. It is efficient as it concentrates the control effort at the critical steps in the operation. Constant monitoring allows rapid response when action is required. Furthermore, the process is controlled on the spot by the operator, not by a laboratory remote from the operation.

6. Food Safety Control System: Assured Safe Catering (ASC)

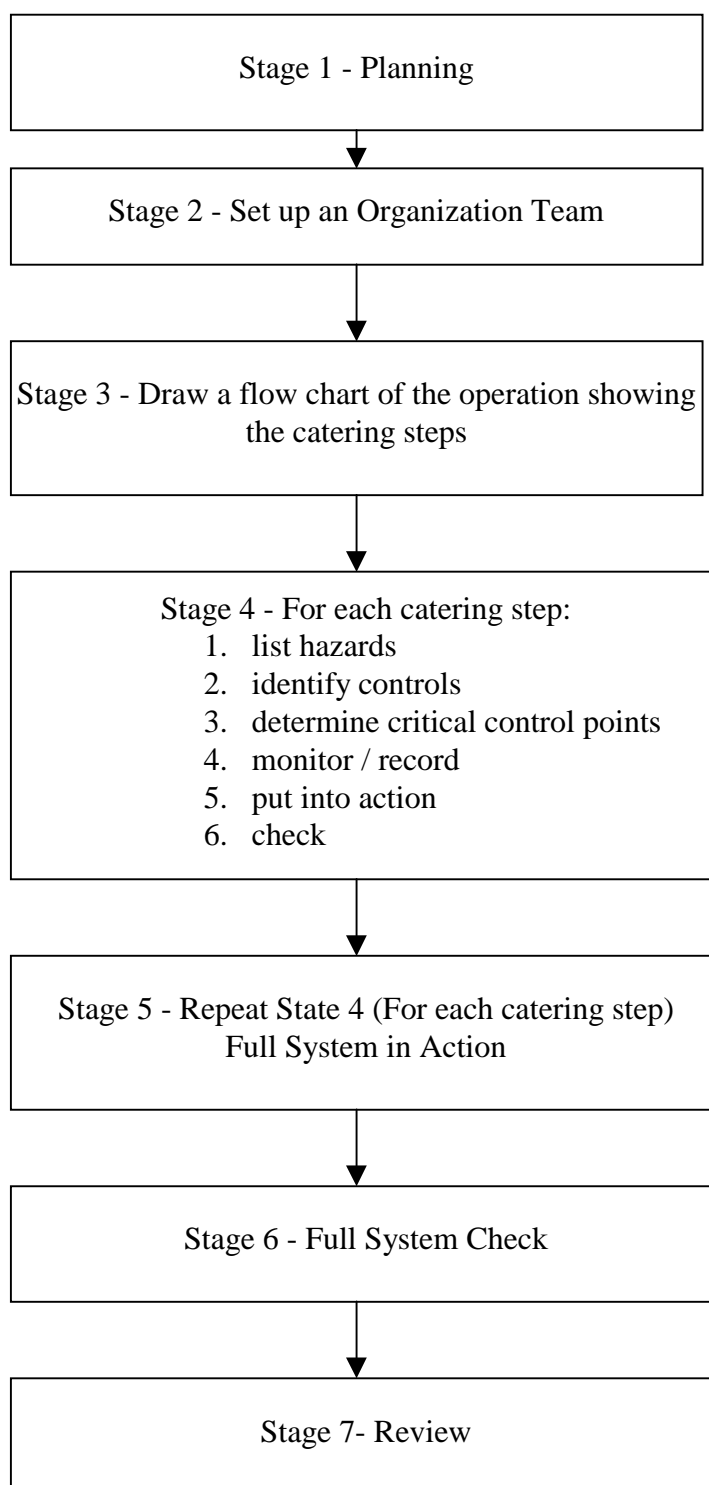
6.1 ASC can be seen as an extension to HACCP specifically directed at the catering industry. It is a technique developed by the Campden Food and Drink Research Association together with specialists from the MAFF and the DH of the UK.

6.2 ASC looks at the catering operation step by step, from the selection of the ingredients right through to the serving of food to the customer. It is hoped that by carefully analyzing each step of the catering operation, anything which might affect the safety of food is identified.

6.3 Figure 3 shows the steps of setting up an ASC system.

⁷ Taylor, "Preparing America's Food Safety System for the Twenty-First Century – Who is Responsible for What When it Comes to Meeting the Food Safety Challenges of the Consumer-Driven Global Economy?" in Food and Drug Law Journal, 52 Food Drug L.J. 13, The Food and Drug Law Institute, 1997.

Figure 3 - The ASC System



Source: Department of the Health of the UK Government, Assured Safe Catering: A Management System for Hazard Analysis, April 1995.

7. Food Safety Control System: Good Manufacturing Practices (GMPs)

7.1 GMPs comprise the basic, universal steps and procedures which prescribe the operating conditions within the food businesses for the production of safe food. The business has to draw up some programmes to identify the control factors which relate to the entire operation. Those control factors include the facilities/grounds, equipment/utensils, pest control, transport and storage, process control, product recall and personnel training.⁸

8. Food Safety Control System: Sanitation Standard Operating Procedures (SSOPs)

8.1 Starting from 27 January 1997, all plants in the US are required to have a written plan known as the Standard Operating Procedures to address sanitation. In the plan, each plant must describe all procedures it conducts every day to ensure effective sanitation, both before and during operations. Plants are also responsible for detecting, documenting, correcting sanitation deficiencies and using that information to strengthen their sanitation control systems to prevent similar problems in the future.⁹

⁸ American Meat Institute, Guidelines for Development of Good Manufacturing Practices (GMPs), November 1997 (<http://www.meatami.org/Gmps1197.htm> d.d. 22/03/99).

⁹ FSIS, “*Pathogen Reduction and HACCP Systems...and Beyond, The New Regulatory Approach for Meat and Poultry Safety*” (<http://www.fsis.usda.gov/OA/background/bkbeyond.htm> d.d. 10/03/99).

PART 3 - AUTHORITIES OF FOOD SAFETY CONTROL AND ENVIRONMENTAL HYGIENE

9. Authorities and Advisory Bodies Relating to Food Safety Control and Environmental Hygiene

9.1 Table 1 sets out the main authorities and advisory bodies relating to food safety control and environmental hygiene in the US and the UK.

Table 1 - List of Main Authorities and Advisory Bodies Relating to Food Safety Control and Environmental Hygiene in the US and the UK

US *	UK
<ul style="list-style-type: none"> • Food & Drug Administration • Centers for Disease Control and Prevention • Food Safety and Inspection Service • Cooperative State Research, Education, and Extension Service • Agricultural Research Service • Environmental Protection Agency • National Oceanic and Atmospheric Administration • Bureau of Alcohol, Tobacco and Firearms • State Agencies • A number of Advisory Committees (Please refer to Appendix I) 	<ul style="list-style-type: none"> • Ministry of Agriculture, Fisheries and Food** • Department of Health • Local Authorities • A number of Advisory Committees (Please refer to Appendix II)

Remarks:

* In the US, the authorities responsible for food safety are government agencies, not ministries.

** MAFF has delegated the power of surveillance and inspection to a number of executive agencies.

9.2 Table 2 summarizes the responsibilities of each of the authorities for food safety control in the US and the UK.

Table 2 - Responsibilities of the Authorities for Food Safety Control in the US and the UK

Responsibilities	US	UK
Physical, Chemical and Microbiological Safety of Food	FDA	DH, MAFF, PHLS
Meat Safety, Hygiene and Inspection of Slaughterhouse	FSIS	MHS
Markets, Supermarkets, Restaurants and Food Outlets Inspection	State agencies	Las
Safety of Imported Food	FDA	PHA
Research on Food Safety	FDA, CDC, ARS, CSREES	DH, MAFF, PHLS
Nutrition	FDA	DH
Food Standards	FDA	MAFF
Food Labelling	FDA, FSIS	MAFF
Food Technology	FDA	MAFF
Veterinary Advice, Medicines	FDA	VLA, VMD
Water Safety	EPA	DETR
Pesticides	EPA	PSD
Enforcement of Food Law	FDA, FSIS	Las
Foodborne Disease Surveillance and Outbreak	CDC	LAs, PHLS, DH
Food Safety Education	CDC, FSIS, CSREES	DH, MAFF, LAs

Remarks:

ARS - Agricultural Research Service
 CDC - Centres for Disease Control and Prevention
 CSREES - Cooperative State Research, Education, and Extension Service
 DETR - Department of Environment, Transport and the Region
 DH - Department of Health
 EPA - Environmental Protection Agency
 FDA - Food and Drug Administration
 FSIS - Food Safety and Inspection Service
 LAs - Local Authorities
 MAFF - Ministry of Agriculture, Fisheries and Food
 MHS, MAFF - Meat Hygiene Service
 PHA - Port Health Authority
 PHLS - Public Health Laboratory Service
 PSD, MAFF - Pesticides Safety Directorate
 VLA, MAFF - Veterinary Laboratories Agency
 VMD, MAFF - Veterinary Medicines Directorate

10. United States

10.1 In the US, there are six agencies in the federal government responsible for food safety. They are as follows:

Department of Health and Human Services (HHS)

1. Food and Drug Administration (FDA);
2. Centers for Disease Control and Prevention (CDC);

United States Department of Agriculture (USDA)

3. Food Safety and Inspection Service (FSIS);
4. Agricultural Research Service (ARS);
5. Cooperative State Research, Education, and Extension Service (CSREES); and

US President's Executive Office

6. Environmental Protection Agency (EPA).

10.2 Both the FDA and CDC are under the HHS whereas the FSIS, ARS and CSREES are under the USDA. EPA is an independent agency. Appendix III is an organization chart of these agencies.

Food and Drug Administration (FDA)

10.3 The FDA was formed in 1930. It employs about 9 300 staff¹⁰ to monitor the manufacture, import, transport, storage and the sale of all domestic and imported food and drugs in the US. It also oversees bottled water and wine beverage¹¹. However, meat and poultry products are not regulated by the FDA;¹² they are under the jurisdiction of FSIS which will be discussed in paragraph 10.6.

¹⁰ FDA, "Subchapter 200 - Organization Overview", Investigation Operations Manual, Chapter 2 - Administration (http://www.fda.gov/ora/inspect_ref/iom/97ch2/iom40.html#SUBCHAPTER_200 d.d. 18/03/99).

¹¹ Refer to wine beverage with less than 7% alcohol.

¹² The FDA only oversees processed products containing 3% or less raw meat and less than 2% cooked poultry meat.

-
- 10.4 The scope of work of the FDA is as follows¹³:
1. to inspect food production plants and to collect and analyze samples for physical, chemical and microbiological contamination;
 2. to monitor safety of colour additives, animal feeds and drugs used in food-producing animals;
 3. to develop model codes, ordinances, guidelines and interpretations and to work with the States to implement them;
 4. to ensure safety of imported food products;
 5. to request manufacturers to recall unsafe food products;
 6. to take appropriate enforcement actions;
 7. to conduct research on food safety; and
 8. to educate industry and consumers on safe food handling practices.

Centres for Disease Control and Prevention (CDC)

10.5 CDC has about 6 900 employees and is responsible for investigating the sources of foodborne disease and promoting health and quality of life by preventing and controlling disease, injury and disability. It works with State and local public health agencies to monitor health, detect and investigate disease outbreaks and other health problems, conduct research, develop and advocate sound health policies, implement prevention strategies, promote healthy behaviour, foster safe and healthy environments and provide public health leadership and training.¹⁴ The following lists the scope of work of CDC relating to foodborne disease:

1. to maintain an electronic system for reporting foodborne disease;
2. to monitor the rates of and the trends in the outbreaks of foodborne disease;
3. to develop advanced technology for rapid identification of foodborne pathogens;
4. to develop and advocate public health policies to prevent foodborne disease; and
5. to conduct research and trains local and State food safety personnel to help in preventing foodborne disease.

¹³ FDA is also responsible for ensuring the safety of human and veterinary drugs, biological products and medical devices, cosmetics and electronic products that emit radiation.

¹⁴ CDC, "About CDC". (<http://www.cdc.gov/aboutcdc.htm> d.d. 17/02/99).

Food Safety and Inspection Service (FSIS)

10.6 FSIS regulates all domestic and imported meat and poultry products.¹⁵ There are about 7 900 inspection operations employees who carry out inspection under the relevant legislation in over 6 000 privately owned meat, poultry and other slaughtering or processing plants in the US.¹⁶ Its scope of work is as follows:

1. to inspect and enforce food safety laws governing domestic and imported meat, poultry and egg products;
2. to set standards for plant facilities, product contents, processing procedures, packaging and labelling;
3. to analyze products for microbiological and chemical adulterants; and
4. to educate industry and consumers on safe food-handling practices.

Agricultural Research Service (ARS)

10.7 ARS is the in-house research arm of the USDA. It is responsible for the following:

1. to provide initiative and leadership in agricultural research;
2. to conduct research in support of Federal action and regulatory agencies;
3. to provide technical expertise to handle food safety and environmental emergencies; and
4. to serve as an agricultural science resource centre to the US executive and legislative branches.

¹⁵ These domestic and imported meat and poultry products refer to processed products containing more than 3% raw meat and 2% or more cooked poultry meat.

¹⁶ FSIS, “*Food Safety and Inspection Service*” in Agriculture Fact Book 98, Chapter 9. (<http://www.usda.gov/news/pubs/fbook98/ch9a.htm> d.d. 25/03/99).

Cooperative State Research, Education, and Extension Service (CSREES)

10.8 The main responsibility of CSREES is to develop research and education programmes on food safety for producers and consumers with other US colleges and universities.

United States Environmental Protection Agency (EPA)

10.9 In the US, water is supplied by local entities and EPA is responsible for ensuring that the water is safe to drink. The scope of work of EPA is listed below:

1. to establish safety standards for potable water;
2. to regulate toxic substances and wastes¹⁷ so as to prevent their entry into the environment and food chain;
3. to assist the States in monitoring the quality of potable water and to find ways to prevent contamination of potable water; and
4. to determine safety standards of new pesticides, set tolerance levels for pesticide residues in food and publish directions on the safe use of pesticides.

10.10 Apart from the above six federal agencies, other agencies which also deal with food safety include the National Oceanic and Atmospheric Administration under the US Department of Commerce and the Bureau of Alcohol, Tobacco and Firearms under the US Department of the Treasury. The former inspects and certifies fishing vessels, seafood processing plants and retail outlets for federal sanitation standards through its fee-for-service Seafood Inspection Programme while the latter oversees beverages containing 7% or more alcohol.

Role of Federal and State Agencies

10.11 State agencies have their own food safety programmes and their primary jurisdiction is to investigate disease outbreaks within their boundaries. State agencies conduct most food safety inspections at the retail food outlets and play the primary supervisory role for certain products such as milk products and shellfish.

¹⁷ Waste is defined as (1) unwanted materials left over from a manufacturing process and (2) refuse from places of human or animal habitation. (<http://www.epa.gov/OCEPATERMS/wterms.html>)

10.12 The federal government works in partnership with the States by providing expert guidance on technical issues and regulatory standards through the Food Code¹⁸ and other FDA manuals. The FDA fosters co-operation through correspondence, press releases, reprints from the Federal Register¹⁹ and distribution of all pertinent policy and regulations issued by the FDA which have significance in the State and local jurisdictions.

10.13 To provide for more efficient use of the manpower and resources in the FDA and other agencies and to prevent duplication of efforts, the FDA and various agencies often enter into formal or informal agreements and/or understandings. These agreements specify areas in which each agency will assume primary responsibility.

Advisory Committees

10.14 Nearly all the government agencies involved in food safety have their own advisory committees. Please refer to Appendix I for details of these committees.

11. United Kingdom

The Existing Arrangements

The Current System

11.1 Responsibility for food standards and food safety is at present divided between several government departments, local authorities (LAs) and a number of other bodies. Appendix IV shows the key features of the current system in England.²⁰

¹⁸ Food Code is a reference developed by FDA for retail outlets and nursing homes and other institutions on how to prepare food to prevent foodborne illness.

¹⁹ Federal Register is a legal newspaper containing Federal agency regulations, proposed rules and notices, Executive orders, proclamations and other Presidential documents. It is published by the National Archives and Records Administration every business day.

²⁰ Wales also has a very similar system except legislation and policy are formally the responsibility of the Welsh Office. In Northern Ireland, the Department of Health and Social Services (DHSS) and the Department of Agriculture for Northern Ireland (DANI) are responsible for food, with the DHSS taking lead responsibility for food safety and some food commodities. DANI has responsibility for meat, eggs and milk issues.

11.6 The following is a brief description of the responsibilities of these seven agencies:

- Veterinary Medicines Directorate (VMD)

11.7 VMD is responsible to the Agriculture and Health Ministers for the authorization and control of the manufacture and marketing of veterinary medicines. It also undertakes surveillance of suspected adverse reactions to veterinary medicines and provides policy advice to Ministers and support to MAFF on matters concerning veterinary medicines.²⁵

- Central Science Laboratory (CSL)

11.8 CSL's main objective is to provide advice, technical and enforcement support to the MAFF's customers such as farmers in order to meet the MAFF's aims in relation to food safety and environmental protection.²⁶

- Pesticides Safety Directorate (PSD)

11.9 PSD is responsible for controlling the sale, supply, storage, advertisement and use of pesticides, implementing post-approval controls over pesticides and providing policy advice to the Minister on matters concerning pesticides.²⁷

- Meat Hygiene Service (MHS)

11.10 MHS is responsible for ensuring a high standard of meat hygiene and animal welfare in licensed fresh meat premises. In Northern Ireland, it is the Department of Agriculture for Northern Ireland (DANI) that is responsible for meat hygiene and inspection services.²⁸

- Veterinary Laboratories Agency (VLA)

11.11 VLA is the primary supplier of specialist veterinary advice to MAFF based on investigation and surveillance, laboratory testing and research. It also offers these services to other public and private sector organizations on a commercial basis.²⁹

²⁵ http://www.maff.gov.uk/aboutmaf/dep/dep/chap9/ch9_007.htm d.d.27/01/99.

²⁶ http://www.maff.gov.uk/aboutmaf/dep/dep/chap9/ch9_003.htm d.d. 27/01/99.

²⁷ http://www.maff.gov.uk/aboutmaf/dep/dep/chap9/ch9_006.htm d.d. 27/01/99.

²⁸ White Paper on The Food Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffd/fsa/> d.d. 20/01/99).

²⁹ http://www.maff.gov.uk/aboutmaf/dep/dep/chap9/ch9_005.htm d.d. 27/01/99.

- Farming and Rural Conservation Agency (FRCA)

11.12 FRCA is responsible for the design, development and implementation of policies on the integration of farming and conservation, rural land use and the diversification of the rural economy.³⁰

- Centre for Environment, Fisheries and Aquaculture Science (CEFAS)

11.13 CEFAS provides scientific services to MAFF and other customers in the fields of fisheries science and management, aquaculture and fish health and environment protection.³¹

Enforcement Responsibilities

- Local Authorities (LAs)

11.14 Except for enforcement of certain provisions on meat and milk hygiene and inspection in England and Wales, food law enforcement is carried out by LAs.³² Certain enforcement activities in Northern Ireland are undertaken by DANI.

11.15 The Environmental Health Departments of the LAs are responsible for enforcing legislation on food hygiene whereas the Trading Standards Departments have responsibility for enforcing legislation on food standards and labelling of food. Public analysts provide analytical service for LAs. (Please see paragraphs 15.18 to 15.20 for details.)

- Port Health Authorities (PHAs)

11.16 PHAs are responsible for enforcing controls on food imported from countries outside the European Union (EU).

- Local Authorities Co-ordinating Body on Food and Trading Standards (LACOTS)

11.17 In England and Wales, local authority enforcement is co-ordinated by LACOTS which provides advice and guidance to LAs on enforcement issues. The Scottish Food Co-ordinating Committee has a similar role in Scotland, although LACOTS also extends to Scotland and Northern Ireland.

³⁰ http://www.maff.gov.uk/aboutmaf/depdep/chap9/ch9_009.htm d.d. 27/01/99.

³¹ http://www.maff.gov.uk/aboutmaf/depdep/chap9/ch9_010.htm d.d. 27/01/99.

³² Local authorities in England and Wales are based on democratically elected councils and the councils are accountable to the residents that they serve. They are not directly accountable to central government but they exercise their responsibilities within a broad legislative framework. They are funded by both central government and locally raised revenue.

- Public Health Laboratory Service (PHLS)

11.18 In England and Wales, surveillance of the microbiological safety of food is carried out by the PHLS. PHLS was initially established under the National Health Service (NHS) Acts to provide a surveillance and control service in connection with infectious diseases in England and Wales. Its principal function is to provide microbiological expertise in the investigation of food poisoning incidents. The PHLS also undertakes routine examination of water and a wide range of food samples.

11.19 However, in Scotland, surveillance of the safety of food is carried out by LAs but co-ordinated by the Scottish Food Co-ordinating Committee. There is no PHLS in Scotland; microbiological food examinations are undertaken by a number of LAs, NHS Trust and independent private laboratories.³³

11.20 In Northern Ireland, Environmental Health Officers (EHOs) send samples of food taken for microbiological examination to the Public Health Laboratory in Belfast City Hospital. The surveillance is co-ordinated by the Food Liaison Group of the Northern Ireland Chief Environmental Health Officers' Group.³⁴

- The Government Chemist

11.21 The Laboratory of the Government Chemist acts as a reference laboratory when there are disputes between LAs and food companies.

Advisory Committees

11.22 There are a number of Advisory Committees which provide independent expert advice on particular areas of food safety to the UK government. Some of these Advisory Committees are statutory whereas others are non-statutory. These Committees publish reports on both regular and on an ad-hoc basis. Committee members, many of whom being science experts, are appointed for their expertise in a particular field. However, most of the Advisory Committees have at least one 'lay member' to put forward the point of view of the consumer. Committees which do not have 'lay members' are currently in the process of appointing one. Appendix II details the main functions of each of these Advisory Committees.

³³ White Paper on The Food Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffdh/fsa/ d.d. 20/01/99>).

³⁴ White Paper on The Food Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffdh/fsa/ d.d. 20/01/99>).

12. Structural Reform of Food Safety Control System

United States

12.1 The US government has not made any structural reform but a different arrangement to improve co-ordination. This is the National Food Safety Initiative (NFSI) which will be discussed in paragraph 15.14.

United Kingdom

FSA

12.2 The 1997 Labour Government was elected on a manifesto commitment to establish a Food Standards Agency (FSA), which aims at protecting public health in relation to food. A White Paper entitled 'The Food Standards Agency: A Force For Change' was published on 14 January 1998. This White Paper proposed a body which covers all aspects of the food chain from the producer to final consumer.

12.3 According to the White Paper, the FSA would take over responsibility from the MAFF and the DH for all aspects of food safety and standards and would also take on a significant role on nutrition policy. It would take the lead in developing policy and preparing legislation on food safety and standards matters. It will work closely with government departments and food industry. It will monitor the whole of the food chain, from the farm to the shop or restaurant. However, it will not take over the existing enforcement responsibilities of LAs. It will only set standards for enforcement and if there is a failure of the system, it will have powers to take action directly to protect the public, or to direct other bodies to do so. The FSA will also obtain advice from independent Advisory Committees. It will provide information and educational material for the public on food matters.³⁵ Subject to the passage of the Food Standards Bill (a copy is kept in the LegCo Library), the UK government expected that the FSA would be fully established toward the end of 1999.³⁶ (Please refer to Appendix V for the proposed components of the FSA.)

12.4 According to the White Paper, the FSA would be a public body. A Commission of about 12 members would be set up to oversee the operations of FSA. The Commissioners would not be representatives of any particular sector or interest group. The FSA would be accountable to Parliament through Health Ministers.³⁷

³⁵ White Paper on The Food Standards Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffdh/fsa/d.d.20/01/99>).

³⁶ http://www.maff.gov.uk/aboutmaf/dep/dep/chap3/ch3_004.htm d.d. 27/01/99.

³⁷ White Paper on The Food Standards Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffdh/fsa/d.d.20/01/99>).

12.5 Those staff in the MAFF and the DH who would most likely be transferred to the FSA were brought together in September 1997 into one Group, namely, the Joint Food Safety and Standards Group (JFSSG). (Please refer to Appendix VI for the organization chart). Those staff are still required to report to the two Ministers according to statutory requirements. Consumer members are being added to advisory committees where not already present.³⁸

Rationale Behind the Creation of FSA

12.6 According to the White Paper, there were three reasons that led to the creation of FSA. First, there is a potential for conflicts of interest within the MAFF. MAFF was responsible for protecting public health as well as sponsoring the agriculture and food industries. Inevitably at times there would be conflicts between concerns for food safety and the short term economic needs of some sectors in these industries. These conflicts were handled within the MAFF and it was not clear how they were resolved. Given the recent food scares (i.e., the Bovine Spongiform Encephalopathy (BSE), the E coli and salmonella scares), there was a call for a restructuring of the MAFF to separate certain aspects of food safety, like policy-making, surveillance, control and audit from the MAFF.

12.7 Secondly, it has long been criticized that there was fragmentation and lack of co-ordination between the various government bodies involved in food safety. It is noted in the Interim Report made by Professor James (1997) that “*there are considerable overlaps and gaps between MAFF, DH and the other departments dealing with food issues. There are also many institutional barriers at different points in the food chain. The links between those institutions involved in monitoring human health and food safety are poor. The mechanisms for monitoring the surveillance of chemical food safety also lack a clear strategy and structure.*” Therefore, there was a need for a single body with an overall remit for food safety to act as a one-stop shop for all food related activities.

12.8 Thirdly, it was reported in the White Paper that there was uneven enforcement of food law. Regulations under the Food Safety Act 1990 were enforced to standards which varied from authority to authority. There was a need to ensure a consistent approach across the UK.

³⁸ <http://www.maff.gov.uk/aboutmaf/depdep/frontisp.htm> d.d. 27/01/99.

Relationship Between the FSA and the Ministers

12.9 The FSA will report to the Secretary of State for Health. It will be required to produce an Annual Report, Corporate Plan and Business Plan and would be subject to an annual accountability review and a five-year review. The FSA will be expected to consult with DH over the production of the Annual Report, and to consider any comments which DH wishes to make on the draft Report, but the FSA would not be bound to make any changes in response to such comments. The Corporate and Business Plans would be subject to the joint agreement by Health Ministers, who would consult other Ministers as appropriate. Appendix VII contains a graphical presentation of the relationship between the FSA and the Ministers.

12.10 DH will retain responsibility for wider public health issues including health surveillance of the population but the FSA will work closely with DH in areas which may have impact on food safety. For example, it will work closely with DH on outbreak management and control policy, on public health education and for surveillance of the nutritional status of the public.

12.11 The FSA would be free to make public its advice to the Health Ministers. If the Ministers refuse to accept the advice from the FSA, they will need to explain in public their reasons for not accepting that advice. The Health Ministers can exercise powers over the FSA if the FSA appears to act outside its terms of reference.

Parliamentary Accountability

12.12 Annual Reports of the FSA would be tabled in the UK Parliament. Health Ministers will present legislation proposed by the FSA to the UK Parliament. A Select Committee on Food might also be established by the UK Parliament to monitor FSA's activities.

PART 4 - MECHANISM OF IMPLEMENTING FOOD SAFETY CONTROL AND ENVIRONMENTAL HYGIENE

13. Characteristics of the Food Safety Control and Environmental Hygiene Systems

13.1 Table 3 shows the characteristics of the food safety control and its related environmental hygiene systems in the US and the UK.

Table 3 - Characteristics of the Food Safety Control and its Related Environmental Hygiene Systems in the US and the UK

	US	UK
Legal basis	<ul style="list-style-type: none"> Federal Food, Drug and Cosmetic Act 1938 A number of Rules and Regulations 	<ul style="list-style-type: none"> Food Safety Act 1990 A number of Regulations and Directives
Surveillance and control systems	<ul style="list-style-type: none"> HACCP SSOPs GMPs Food Code 	<ul style="list-style-type: none"> First 5 principles of HACCP given in paragraph 5.3 ASC Good Hygiene Practice Codes of Practice General Principles of Food Hygiene
Enforcement of food safety standards	<ul style="list-style-type: none"> Federal agencies 	<ul style="list-style-type: none"> Las
Restaurants and food outlets inspection	<ul style="list-style-type: none"> State agencies 	<ul style="list-style-type: none"> Las
Consequence of Non-compliance of food standards	<ul style="list-style-type: none"> Voluntary recall of products by producer Federal agencies to seek court order to remove or destroy the product 	<p>4 different levels of control in the event of non-compliance:</p> <ul style="list-style-type: none"> Improvement notice issued by Las Prohibition order by court Emergency prohibition notice by LAs or emergency prohibition order by court Emergency control order such as prevention of distribution and sale of contaminated food
Penalty	<ul style="list-style-type: none"> Fines and imprisonment 	<ul style="list-style-type: none"> Fines and imprisonment
Imported food standard is equivalent to domestic food standard	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes
Surveillance and control of imported food	<ul style="list-style-type: none"> Memoranda of understanding Customs checking Failure in compliance may result in liquidation of importer's bond and product detention. 	<ul style="list-style-type: none"> Health certification Veterinary checking Equivalent Agreement with the EU

14. The Legal Framework

United States

14.1 In the US, the Federal Food, Drug and Cosmetic Act 1938 and the Public Health Service Act 1944 empowered the FDA to promote and to protect the public health by ensuring that the food is safe and wholesome. The Federal Meat Inspection Act 1906, the Poultry Products Inspection Act 1957 and the Egg Products Inspection Act 1995 provide FSIS with the power to ensure that the nation's supply of meat, poultry and egg products are safe, wholesome, and correctly labelled and packed.

14.2 The Safe Drinking Water Act 1996 in the US was enacted to protect the quality of drinking water. The Act authorized EPA to establish safe standards of purity and required all owners or operators of public water systems to comply with the National Primary Drinking Water Regulation (NPDWR).³⁹ State governments also encourage operators to comply with the National Secondary Drinking Water Regulation (NSDWR).⁴⁰

United Kingdom

Food Safety Act 1990

14.3 The Food Safety Act 1990 puts the onus of food safety on food businesses⁴¹ which should carry out appropriate checks to ensure that the food they offer for sale is safe. The Food Safety Act 1990 covers a broad range of commercial activities relating to food; from the sources from which food is derived, such as crops and animals; to articles which come into contact with food, ranging from wrappings to manufacturing plant.

³⁹ National Primary Drinking Water Regulation (NPDWR or primary standard) is a legally-enforceable standard that applies to public water systems which protects the drinking water quality by limiting the levels of specific contaminants that can adversely affect public health and are known or anticipated to occur in water.

⁴⁰ National Secondary Drinking Water Regulation (NSDWR or secondary standard) is a non-enforceable guideline regarding contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply. However, States may choose to adopt them as enforceable standards.

⁴¹ Food businesses not only include food preparation, processing, manufacturing, transport and distribution, they also include food handling, packaging, storage and selling.

Regulations

14.4 There are a number of Regulations giving details of food safety standards and enforcement procedures. For example, domestically produced foods of plant origin and all retail and catering sectors are covered by the General Food Hygiene Regulations 1995. Imported food not of animal origin is subject to the Imported Food Regulations 1997.

European Community⁴² (EC) Regulations and Directives

14.5 The EC Regulations and Directives introduced three new features to the food hygiene controls in the UK⁴³:

1. a requirement on all food businesses to adopt the first five principles of HACCP as described in paragraph 5.3;
2. a requirement for all food handlers to be supervised and trained in food hygiene matters pertinent to their food activities; and
3. the concept of voluntary “Industry Guides to Good Hygiene Practice” to provide practical guidance on the law for industry sectors.

Codes of Practice

14.6 There are 20 Codes of Practice on a wide range of issues including the registration of food premises, the inspection frequencies and procedures, enforcement of general food hygiene regulations, enforcement of product specific food hygiene regulations, etc.

⁴² Following the Treaty of Maastricht signed in November 1993, the European Community was further integrated to form the European Union.

⁴³ Memorandum of Evidence submitted by the MAFF, the DH, Scottish Office, Welsh Office and Northern Ireland Office to the House of Commons Select Committee on Agriculture: Inquiry on Food Safety.

15. Surveillance and Control

United States

15.1 In December 1995, the FDA required the seafood industry to establish HACCP with effect from 18 December 1997.⁴⁴ The USDA also established HACCP for the meat and poultry industry.⁴⁵

15.2 On 21 April 1998, the FDA proposed regulations for implementing HACCP for fruit and vegetable juices.⁴⁶ In fact, the FDA is considering developing HACCP regulations as a standard for the rest of the US food supply covering both domestic and imported foods.

Surveillance and Enforcement by the FDA

- Domestic Products

15.3 The FDA has some 1 100 investigators and inspectors who cover the country's almost 95 000 the FDA-regulated businesses.⁴⁷ They are located in district and local offices in 157 cities across the country. These investigators and inspectors visit more than 15 000 facilities a year to ensure that all the products regulated under the FDA's jurisdiction are fit for consumption and are labelled truthfully. They also collect about 80 000 domestic and imported product samples for examination by the FDA scientists or for label checks. Each year, about 3 000 products are found to be unfit for consumption and are withdrawn from the marketplace.⁴⁸

15.4 If a company is found violating the laws of the FDA, the FDA will encourage the company to voluntarily correct the problem or to recall the product from the market. It should be noted that the FDA has no authority under the Federal Food, Drug and Cosmetic Act 1938 to order a recall. Thus, most recalls are carried out voluntarily by the manufacturers or distributors. If the company does not respond, the FDA can apply for a court order to stop the company from selling the product and to have items seized and destroyed. When warranted, criminal penalties, including prison sentences, are sought against the manufacturers and distributors concerned.

⁴⁴ FDA, "HACCP: A State-of-the-Art Approach to Food Safety" in FDA Background, 12 August 1997 (d.d 10/03/99).

⁴⁵ Large establishments (500 or more employees) are required to use HACCP by 26 January 1998, smaller companies (10 to 499 employees) by 25 January 1999 and very small plants (less than 10 employees) by 25 January 2000.

⁴⁶ HHS, "FDA Proposes New Rules to Increase Safety of Fruit and Vegetable Juices" in HHS News, 12 April 1998 (d.d. 16/03/99).

⁴⁷ Statistics covering all FDA-regulated businesses, not only food businesses.

⁴⁸ FDA, FDA: An Overview, (<http://vm.cfsan.fda.gov/fdaoview.html>, d.d 05/01/99).

- Imported Products

15.5 For imported food products, all importers are required to file an entry notice and an entry bond (equivalent to US\$1,250)⁴⁹ with the US Customs. The FDA is then notified by the Customs of the entry. If the FDA does not suspect that entry, the shipment is allowed to enter into the US market. Otherwise, the shipment is held and a sample is collected for laboratory analysis. Each year, about 3% of all entries are physically sampled.⁵⁰ If the product is found to be adulterated or mislabelled, the FDA will issue a Notice of Detention and Hearing to the owner or importer specifying a place and time whereby the individual may introduce testimony either verbally or in writing.

15.6 The importer can submit a petition to re-process or re-label the product. However, if the product is produced under insanitary conditions and cannot be re-processed, it must be exported or destroyed by the importer under the supervision of the US Customs or other approved authorities. If the refused product is not destroyed or exported, Customs will re-issue a delivery notice to the importer. Failure to re-deliver the refused product may result in Customs assessing liquidated damages against the importer's bond. Each year, about 30 000 import shipments are detained at the port of entry because of not meeting the US import standards.⁵¹

15.7 To further expedite surveillance, the FDA has entered into agreements with foreign governments. Through memoranda of understanding (MOU), governments agree to ensure that their products meet the US standards and are tested and sampled in a specific way before leaving the country.

15.8 To help its inspectors to cover the vast number of imports, the FDA issues alerts to its district offices which contain the names and descriptions of products, shippers or importers that have repeatedly been found to violate the FDA laws or regulations. The import alert signals the FDA inspectors to pay special attention to a particular product when it arrives in port and to automatically detain it.

Surveillance and Enforcement by the USDA

- Domestic Products

15.9 By law, the USDA inspectors are required to conduct carcass-by-carcass inspection in slaughter plants and carry out daily inspections in processing plants. Carcasses and processed products cannot be distributed without the USDA mark of inspection.

⁴⁹ FDA, [Background on General Accounting Office Food Safety Report](#).

⁵⁰ FDA, "Imports and FDA" in [FDA Backgrounder](#), May 1992 (<http://vm.cfdan.fda.gov/~lrd/bgimport.html> d.d. 10/03/99).

⁵¹ FDA, [FDA: An Overview](#) (<http://vm.cfsan.fda.gov/fdaoview.html>, d.d 05/01/99).

15.10 With the HACCP principles, FSIS inspectors will take action if the plant's control systems designed for food safety are not functioning as they should. FSIS has the authority not only to make inspection, but also to withhold the mark of inspection from specific product, to suspend inspection or to withdraw inspection if the plant continues to fail to meet the regulatory requirements.

15.11 If evidence is found that a person or business has violated federal meat or poultry inspection laws, FSIS may refer the case to the appropriate US Attorney's Office to pursue criminal prosecution. Criminal convictions can result in fines, imprisonment or both. Also, laws enforced by the USDA give FSIS the power to prohibit the owners or managers of a plant who are convicted of a felony or certain other laws, from managing or owning a meat or poultry company.

- Imported Products

15.12 For imported meat and poultry, the countries of origin must first apply for the import of such food items to FSIS. Technical experts will then evaluate the exporting country's laws and regulations. It will focus on five risk areas: contamination, disease, processing, residues and compliance and economic fraud. If the document review process shows the country's system to be satisfactory, a technical team will visit the country to evaluate the five risk areas as well as other aspects of the inspection system including plant facilities and equipment, laboratories, training programmes and in-plant inspection operations. If FSIS judges the system equivalent to the US system, the country is eligible to export meat or poultry to the US. FSIS will periodically review the inspection systems in the eligible countries ensuring that the US requirements are met.

Reform of the United States Food Safety Control System

Background

15.13 The system for identifying and preventing foodborne disease was largely created in the early 1900s which has not been able to properly identify, track, control and even prevent the outbreak of foodborne disease. In 1993, the National Performance Review (NPR) Food Safety Working Group found that the food safety system in the US “*cumbersome, inefficient, and ineffective*”.⁵² It recommended the consolidation of federal responsibility for food safety into a single agency. The NPR report also urged the implementation of HACCP systems to ensure minimum contamination.

⁵² Taylor, “*Preparing America’s Food Safety System for the Twenty-First Century - Who is Responsible for What When it Comes to Meeting the Food Safety Challenges of the Consumer-Driven Global Economy?*” in Food and Drug Law Journal, 52 Food Drug L.J.13, The Food and Drug Law Institute, 1997.

National Food Safety Initiative (NFSI) 1997

15.14 In January 1997, President Clinton announced a five-point plan to strengthen and improve food safety for the American people. Working with consumers, producers, industry, States, universities and the public, the Clinton Administration developed some measures to reduce foodborne disease from microbiological contaminants. It includes provisions:

1. to improve inspections and to expand preventive safety measures;
2. to increase research to develop new tests to detect foodborne pathogens and to assess risks in the food supply;
3. to build a national early warning system to detect and respond to outbreaks of foodborne disease and to provide relevant data to prevent future outbreaks;
4. to establish a national education campaign that will improve food handling in homes and retail outlets; and
5. to strengthen co-ordination and improve efficiency among agencies such as the establishment of the Food Outbreak Response Co-ordinating Group (FORCG) which will be discussed in paragraphs 18.6-18.10.

United Kingdom*Food Safety Policy Objectives*

15.15 There are two main elements in the food safety policy of the UK government.⁵³

1. to promote good hygienic practices both at home and throughout the food chain; and
2. to reduce the prevalence of human pathogens in the food chain “from farm to fork”.

The policy also aims that all food produced for sale or supply is safe to eat, reaches quality expectations and is not misleadingly presented.

⁵³ Memorandum of Evidence submitted by the MAFF, the DH, Scottish Office, Welsh Office and Northern Ireland Office to the House of Commons Select Committee on Agriculture: Inquiry on Food Safety.

Standards for Food Safety Control

15.16 The UK government states that it supports the work of the Codex Alimentarius Commission⁵⁴ on food safety systems and standards, notably the recently revised General Principles of Food Hygiene. At the moment, EU legislation does not yet wholly reflect the Codex General Principles of Food Hygiene, but EU Member States are committed to moving in this direction. The UK government has also said that it supports any industry initiative, such as through GMPs, to encourage best practice throughout the food chain.

Standards for Environmental Hygiene Related to Food Safety

15.17 MAFF issues three Codes of Good Agricultural Practice: the Soil Code; the Air Code; and the Water Code. These Codes provide general guidance on practices for farmers. In particular, the Soil Code highlights that it is the farmers' responsibility to protect soil which in turn helps to protect other parts of the environment.⁵⁵ All three Codes were recently updated to reflect new technical developments and legislation.

Enforcement

15.18 LAs have a duty to enforce food law made under the Food Safety Act 1990. LA inspectors are free to choose the most appropriate manner of enforcement but they have to work in accordance with the central government guidance published in codes of practice. They may issue improvement notices requiring remedial work, or close businesses to avoid risk to public health. They also have a duty to investigate complaints which are passed on to them by consumers.⁵⁶

- Environmental Health Officers and Trading Standards Officers

15.19 Enforcement is carried out by Trading Standards Officers (TSOs) and EHOs of the LAs. Both have a wide range of duties with some overlap in the food area. TSOs enforce legislation on food standards and labelling. EHOs are responsible for work on food hygiene as well as safety at work, housing, pollution and noise. TSOs and EHOs functions are carried out by separate inspectorates in England, but are combined in a single department in most Welsh local authorities.⁵⁷

⁵⁴ Codex Alimentarius Commission (CAC) is an international organization created by the Food & Agriculture Organization and the World Health Organization of the United Nations. The purpose of CAC is to apply international food standards in a uniform manner. The standards apply to all principal foods, whether processed, semi-processed or raw, for distribution to the consumer (<http://www.codexfacts.com/> d.d. 25/03/99).

⁵⁵ Soil provides a filtering and buffering action to protect water and the food chain from potential pollutants.

⁵⁶ White Paper on The Food Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffd/fsa/> d.d. 20/01/99).

⁵⁷ White Paper on The Food Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffd/fsa/> d.d. 20/01/99).

- Public Analysts

15.20 LAs are required by law to appoint Public Analysts who are qualified professionals to analyze the composition of food and water and for detecting the presence of contaminants. There are 31 Public Analysts' laboratories in the UK, over half of which are based within LAs departments. The remainder are private laboratories appointed as Public Analysts by LAs.⁵⁸

Food Hygiene

15.21 LAs are responsible for organizing the destruction or disposal of sub-standard food. This is done by total destruction, e.g. incineration, or disfigurement of the food concerned. The authorities also have to ensure that such food cannot be returned to the food supply chain.

15.22 LAs have statutory powers to close premises which are insanitary or where the operation of the business exposed people to risk of foodborne disease or even death.

15.23 On average, MAFF carries out two or three surveys a year under its microbiological food surveillance programme. In 1997, surveys were conducted on unpasteurized milk cheeses, unpasteurized cream and on minced beef, lamb and pork. All survey results are published in the form of a publicly available report which is submitted to the Advisory Committee on the Microbiological Safety of Food (ACMSF) prior to publication for an assessment of their public health significance.⁵⁹

Meat Hygiene

15.24 Meat inspection and enforcement of the hygiene legislation in licensed plants are carried out by the MHS. In Northern Ireland, responsibility is shared between the DANI and LA.⁶⁰

15.25 Amendments have been made to the Fresh Meat Regulations which provide that all red meat from animals slaughtered for human consumption at a licensed slaughterhouse should be subject to the full veterinary supervision and health requirements.⁶¹

⁵⁸ [White Paper on The Food Agency: A Force for Change](http://www.official-documents.co.uk/document/maffdh/fsa/d.d.20/01/99), 14 January 1998 (<http://www.official-documents.co.uk/document/maffdh/fsa/d.d.20/01/99>).

⁵⁹ http://www.maff.gov.uk/aboutmaf/dep/dep/chap3/ch3_006.htm. d.d. 27/1/99.

⁶⁰ [White Paper on The Food Agency: A Force for Change](http://www.official-documents.co.uk/document/maffdh/fsa/d.d.20/01/99), 14 January 1998 (<http://www.official-documents.co.uk/document/maffdh/fsa/d.d.20/01/99>).

⁶¹ http://www.maff.gov.uk/aboutmaf/dep/dep/chap3/ch3_006.htm. d.d. 27/01/99.

Milk Hygiene

15.26 Dairy farms are periodically inspected by the FRCA. All milk production holdings in England and Wales must be registered and are subject to inspection.

15.27 Milk hygiene inspection visits take place on average once every 2-2.5 years although producers with particularly high standards of hygiene are only visited once every 3-4 years. Samples of untreated cows' milk⁶² are normally taken twice annually. Producers who fail to meet the statutory hygiene standards can ultimately be issued with a final notice cancelling their farm registration to produce milk for human consumption. There are currently exemptions from charging for pre-registration visits to dairy farmers and for sampling visits to small producers in remote rural areas and farmhouse caterers.⁶³

Water

15.28 The FSA, once established, will take over the responsibility for water quality such as the safety, composition and labelling of bottled water, and the safety of all water sold or used by food businesses. However, broader responsibility for the supply of wholesome water would remain the responsibility of the Secretary of State for Environment, Transport and the Regions and the Secretaries for State for Wales, Scotland and Northern Ireland.

15.29 In Scotland, there are three water and sewerage authorities responsible for supplying potable water. They are the North of Scotland Water Authority, West of Scotland Water Authority and the East of Scotland Water Authority. The Water Supply (Water Quality) Regulations 1990 require the water and sewerage authorities routinely to monitor the quality of water in supply and to provide the results of monitoring to the Water Services Unit. The analytical work carried out by the authorities' laboratories is subject to regular inspection by the UK Accreditation Service.

Imported Food

15.30 All food imported into the UK, whether from other Member States of the EU or from other countries, will have been produced to standards equivalent to those applied to domestic production and subject to the same legislation as the domestic produce.

⁶² In the past, humans have contracted tuberculosis by drinking untreated milk from cows with tuberculous udders. Infection in meat can be destroyed by normal cooking. (<http://www.open.gov.uk>)

⁶³ http://www.maff.gov.uk/aboutmaf/dep/dep/chap3/ch3_006.htm. d.d. 27/01/99.

15.31 Products of animal origin coming from other countries may only come from countries approved to export the particular product to the EU, and from establishments within those countries that have been approved on the basis that they apply the same standards. Imported foods are accompanied by health certification, and are subject to veterinary checks on entering. Those countries that have signed an Equivalent Agreement with the EU, indicating mutual recognition that each other's hygiene regimes have equivalent effect, would be subject to reduced veterinary checks.

15.32 Food not of animal origin coming from other countries is still subject to the UK national rules, under the Imported Food Regulations 1997. These regulations require that imported food should be produced at the same food safety standards as prescribed in the Food Safety Act 1990. Port Health Authorities enforce the regulations and make regular inspections of consignments.

PART 5 - CRISIS MANAGEMENT

16. Handling of Foodborne Disease in the United States

16.1 Foodborne disease is reported to local and the State health departments and CDC through passive surveillance systems or laboratory-based reporting systems. These systems rely on a few necessary events. First, an individual with foodborne disease must choose to seek medical care. Secondly, the patient's physician must decide to collect cultures and request laboratory analyses. Finally, the results must be reported to State health departments and then to CDC. If any step in the process is missed, the case goes unreported. CDC estimates that less than five percent of foodborne disease cases is reported.⁶⁴

16.2 In general, State health departments voluntarily report outbreaks to CDC. They tend to report when there are victims of foodborne disease from multiple states and / or when the contaminated goods are in interstate commerce. They tend to report in-state outbreak at a slower pace. The reporting decision is made primarily based on the severity and for the number of cases. A Foodborne Disease Active Surveillance Network (FoodNet) has been set up to determine the likely food source for sporadic cases of foodborne disease in the US.

16.3 When outbreaks of foodborne disease occur, federal agencies will work with State and local health and agricultural authorities to investigate and implement the control measures through consultation, diagnostic assistance and by regulatory action against the products. In some instances, on-site assistance is requested by local and State authorities from the CDC and other agencies to establish the cause of an outbreak. For large or multi-states outbreaks, federal agencies play a critical co-ordination role to ensure consistency of approach and implementation of the necessary control measures.

17. Handling of Foodborne Disease in the United Kingdom

Introduction

17.1 The UK government operates several systems to detect food poisoning.⁶⁵ They are the 'Food Hazard Warning System', the 'Food Poisoning Notifications System', the 'Laboratory Reporting System' and the 'Epidemiology Communication and Information Network' system.

⁶⁴ FSIS, *Foodborne Diseases Active Surveillance Network (FoodNet)*, February 1998.

⁶⁵ Food poisoning is defined as 'any disease of an infectious or toxic nature caused by or thought to be caused by the consumption of food and water' by ACMSF. The same definition has been adopted by the World Health Organization.

The Food Hazard Warning System

17.2 DH, MAFF, the Scottish Office, the Welsh Office and the Health and Agriculture Departments in Northern Ireland together operate a system to alert the public and food authorities to national or regional potential problems concerning food which does not meet food safety requirements.⁶⁶ The system is called the 'Food Hazard Warning System'.

17.3 The Food Hazard Warning System is activated when major incidents occur. This might be when there is a need for national action to inform the public or for the withdrawal from the market of large quantities of food. Where a local authority has identified a potentially widespread problem, it will determine its probable scale and the extent of the risk to health. This information will be passed to the DH to consider co-ordinated central action as appropriate.

17.4 The procedures adopted by DH are as follows⁶⁷:

“

1. to alert, by fax or electronic mail, all LAs and health authorities to the food hazard;
2. to withdraw the suspect food from sale. The import, manufacture or distribution of the product can also be stopped until detailed investigations take place;
3. to inform the producer or importer of the risk and of the legal obligations under the Food Safety Act 1990 regarding the sale of food which is unfit, unsound or unwholesome;
4. to advise the public of the food hazard and any action that they should take.”

17.5 A statutory Code of Practice, “Code of Practice No. 16: Enforcement of the Food Safety Act 1990 in relation to the Food Hazard Warning System” has been issued to formalize the arrangements.

Food Poisoning Notifications System

- England and Wales

17.6 Information in relation to food poisoning in England and Wales is collected and analyzed by PHLS and the Communicable Disease Surveillance Centre (CDSC). Doctors in England and Wales have a statutory duty to notify the local authority of cases or suspected cases of food poisoning.

⁶⁶ DH, Management of Outbreaks of Foodborne Illness, December 1994, p. 47.

⁶⁷ Ibid., p. 48.

- Scotland

17.7 A medical practitioner attending a patient suffering from food poisoning is required by law to notify the Chief Administrative Medical Officer (CAMO) of the Health Board for the area. CAMOs are required to send a weekly return of notified cases to the Information and Statistics Division of the Common Services Agency and must also report any serious incidents to the Chief Medical Officer.

17.8 In practice, CAMOs normally delegate this responsibility to Consultants in Public Health Medicine service. These consultants may also receive reports of cases of food poisoning from other sources such as laboratories and EHOs from the LAs. Notification data are published in the Scottish Centre for Infection and Environmental Health (SCIEH) Weekly Report.

Laboratory Reporting System

- England and Wales

17.9 The CDSC receives laboratory reports from PHLS, the NHS and private laboratories. These reports are based on microbiological examination of faecal specimens from patients.

- Scotland

17.10 All Scottish NHS microbiology laboratories participate in a voluntary scheme of weekly reporting to the SCIEH.

Epidemiology Communication and Information Network (EPINET) System

17.11 EPINET is used in England, Wales and Scotland to link laboratories, health authorities, LAs and CDSC for the purpose of surveillance, investigation and the control of communicable disease. Information is received and stored in the EPINET satellite unit which is capable of sending and receiving files to and from any other EPINET user.

18. Case Study

United States

E coli O157:H7

- 1992

18.1 In June, a three-year old girl in Long Island was found infected by E coli O157:H7. She died after 18 days struggle.⁶⁸ Though the girl's father tried to meet with meat industry representatives and government health authorities to alert them to the dangers of the devastating disease, he had little success. In August and September, two children died from the same disease, but neither family was able to trace their child's poisoning to a specific source.

- 1993

18.2 In January, about 600 people were infected and three children were killed by E coli O157:H7 after eating the contaminated, undercooked ground beef served in the Jack-in-the-Box restaurants in the Seattle, Washington area and three other western states.⁶⁹ Outbreaks of a lesser scale were found in other states and subsequently hundreds of others were infected, resulted in six more deaths. Jack-in-the-Box initiated a multi-states recall of unused hamburger patties on 18 January.

The Government's Response

18.3 Since FSIS is responsible for meat safety, this '1993 E coli O157:H7' incident was handled by them. The FSIS, together with the CDC, State and county health departments launched a nationwide investigation into the cause of the outbreak. They identified five slaughter plants in the US and one in Canada as the likely sources of contaminated meat and also identified potential control points to reduce the likelihood of contamination. The Secretary of Agriculture asked the Congress for extra money to hire 200 additional meat inspectors. He also instituted a series of unannounced inspections designed to get the worst offenders to clean up or be shut down.

⁶⁸ Weintraub and Teich, "*Fatal food: How to protect your family; contamination of hamburger meat causes hemolytic uremic syndrome; includes related article on handling of food*" in Redbook, Hearst Corporation, Vol 183, No. 3, P134, July 1994.

⁶⁹ Weintraub and Teich, "*Fatal food: How to protect your family; contamination of hamburger meat causes hemolytic uremic syndrome; includes related article on handling of food*" in Redbook, Hearst Corporation, Vol 183, No. 3, P134, July 1994.

18.4 Since the 1993 E coli O157:H7 incidence, State legislatures have been encouraged to mandate the reporting of foodborne disease, particularly those caused by E coli O157:H7. Currently, about 35 States have mandatory state reporting of E coli O157:H7.⁷⁰

18.5 The Clinton Administration, through FSIS, has also focused on the design and implementation of a science-based food safety strategy to reduce the risk of disease caused by bacterial contamination of meat and poultry products. Details of their activities are outlined in Appendix VIII.

Food Outbreak Response Coordinating Group (FORCG)

- Membership

18.6 In the 1997 NFSI, USDA, EPA, the FDA and the CDC signed a MOU and create the Food Outbreak Response Co-ordinating Group (FORCG). In addition to the federal officials of these four agencies, FORCG also includes representatives of other related associations.⁷¹ FORCG is co-chaired by the Under Secretary for Food Safety from the USDA and the Assistant Secretary for Health from HHS and meets bi-monthly.⁷² Appendix IX contains a graphical presentation of the composition of FORCG.

- Area of Responsibility

18.7 Each of the four federal agencies has a critical role when an outbreak occurs. CDC is responsible for the identification of the cause of the outbreak. The FDA, FSIS, and EPA have responsibility for determining whether the product they regulate is the source of the outbreak and for stopping the spread of disease by taking regulatory action against the suspect product.

18.8 Under FORCG, there will be one person/position designated as the outbreak co-ordinator for each department or agency. This position will be established as a formal institutional position, with appropriate backup designates. For outbreaks that fall within the purview of HHS, HHS will designate the Assistant Secretary for Health to be the primary person in charge of co-ordination for HHS. For outbreaks that fall within the purview of USDA, the Under Secretary for Food Safety will co-ordinate for USDA. EPA will designate the Assistant Administrator for Water as the primary person in charge of co-ordination for EPA when drinking water is involved.

⁷⁰ FSIS, FSIS, FDA, CDC, State Health Departments Collaborate on Foodborne Illness Project, July 1995.

⁷¹ Other associations include the Association of Food and Drug Officials, National Association of City and County Health Officials, Association of State and Territorial Public Health Laboratory Directors, Council of State and Territorial Epidemiologists and National Association of State Departments of Agriculture.

⁷² Memorandum of Understanding Among the USDA and HHS and EPA (<http://www.foodsafety.gov/~dms/forcgmou.html>, 05/01/99).

- Scope of Work

18.9 The scope of work of FORCG is as follows:

1. to review and evaluate the outbreak response at the federal agency level;
2. to identify areas where efficiency can be gained and to make specific recommendations for improvement;
3. to develop standard operating procedures for the rapid exchange of data and information associated with foodborne disease outbreaks;
4. to conduct a nationwide survey to catalogue existing State and local food safety programme infrastructure; and
5. to establish working groups to develop recommended procedures to co-ordinate the outbreak response among federal and State agencies.

18.10 This new management system provides a common set of objectives and strategies and one spokesperson to speak on behalf of the federal government. If there are indications to Federal or State agencies of a large-scale outbreak, the staff will inform the Co-ordinator who will then co-ordinate the response among Federal and State agencies.

Mechanism for Prevention and Management of Outbreak of Foodborne Disease

18.11 Both the FDA and FSIS maintain a 24-hour telephone service staffed with a duty officer trained to respond to emergencies and ongoing disease. In fact, each agency has specific mechanisms in place.

- FDA

18.12 The FDA's Division of Emergency and Investigational Operations is responsible for the outbreak of foodborne disease of all food products except those regulated by the FSIS. This Division also serves to co-ordinate with other agencies. To improve communications with these agencies, the FDA has adopted a fax-on-demand and fax broadcast system to disseminate information to all concerned parties such as Federal agencies. This provides an early alert or update to foodborne disease investigations. The FDA also instituted a 50-state conference call system to keep all State agencies up-to-date on major outbreaks of foodborne disease.

- CDC

18.13 CDC provides 24-hour emergency consultation for foodborne disease of clinical emergencies. It also stations Epidemic Intelligence Service Officers in 15-20 States to support surveillance and emergency response at the State level. CDC has established rapid communication links with all State and Territorial epidemiologists and public health laboratory directors providing rapid group electronic mail and group fax links and conference calls in outbreak settings.

- FSIS

18.14 FSIS has established an Emergency Response Programme to prevent and control foodborne disease outbreaks involving meat, poultry, and egg products. FSIS communicates with State departments of health and co-ordinates outbreak response through CDC WONDER (Internet).

United Kingdom

Management of Outbreak of Foodborne Disease

18.15 Responsibility for the management of outbreaks of foodborne disease falls jointly to LAs and local health authorities. The heads of these two organizations are answerable for the teams they employ and any collaborative arrangements that they have made for the control of communicable disease. The necessary medical expertise is provided by the health authority's Consultant in Communicable Disease Control (CCDC). The CCDC's remit is the surveillance, prevention and control of all communicable disease among the health authority's population. The staff who carry out much of the detailed work of investigating an outbreak of foodborne disease are usually EHOs.

18.16 The Secretary of State for Health has a statutory duty to protect the health of the public. However, only in very exceptional circumstances would the DH become directly involved in the management of a local outbreak, although it may need to be kept in touch with events in order to advise Ministers and senior officials of the position.⁷³ The role is usually a co-ordinating one, to ensure pan-national and international issues are addressed and controlled. Medical experts and EHOs working in central government may also offer expert advice to the local investigators drawing on their own experience and that of other experts.

⁷³ UK Department of Health, Management of Outbreaks of Foodborne Illness, December 1994, p. 46.

Outbreak Control Group (OCG)

18.17 An Outbreak Control Group (OCG) may be established when any of the following applies⁷⁴:

1. the disease poses an immediate health hazard to the local population;
2. there are a large number of cases;
3. unexpected cases appear in more than one local authority district and/or more than one health authority area; and
4. the disease is unusual.

18.18 However, the features of an outbreak which are considered to require the establishment of a formal OCG will vary, depending on the geographical spread of the infection, seriousness of the infection and local circumstances. The membership of OCG may also vary according to the circumstances, but it should normally include the CCDC, Chief EHO, Consultant Microbiologist and other administrative and secretariat staff.

18.19 Appendix X illustrates the procedures adopted by the UK government in the assessment of an outbreak.

The Incident: The Bovine Spongiform Encephalopathy (BSE) Crisis

18.20 BSE or the 'mad cow disease' was first diagnosed in November 1986 at the Central Veterinary Laboratory. BSE was caused by feeding the animal with meat-and-bone meal which was manufactured in accordance with the 'Carver-Greenfield' System. The manufacture of this meat-and-bone meal was authorized by the UK government.⁷⁵ The epidemic of BSE reached its peak in the UK in early 1993 and 75% of the cases occurred between 1990 and 1994. Since then, the UK government has introduced a number of measures to eradicate the disease but it took the government some 10 years to contain its spread. Eradication measures are still under way. Appendix XI contains a summary of BSE chronology in the UK.

⁷⁴ UK Department of Health, Management of Outbreaks of Foodborne Illness, December 1994, p. 10.

⁷⁵ European Parliament Temporary Committee of Inquiry into BSE: Final European Parliament BSE Inquiry Report, 7 February 1997 (http://www.mad-cow.org/final_EU.html).

Measures Taken by the United Kingdom Government

- Feed Ban

18.21 One of the key measures introduced by the UK government is the feed ban which has been introduced since July 1988. This was introduced to prevent the incorporation of potentially infectious material into the feed for ruminants.

- Animal Slaughter

18.22 Another measure introduced is the slaughtering of animals which have the highest risk of developing BSE. The UK government has introduced a number of programmes on animal slaughter. For example, “Programme on BSE”, “Over Thirty Month Scheme”, “Beef Assurance Scheme” and “Selective Cull Programme”.

18.23 The Intervention Board (IB)⁷⁶ remains responsible for implementing the majority of measures introduced in connection with the BSE emergency.⁷⁷

Criticism on the Administration of BSE Measures by the United Kingdom Government

18.24 The report made by the European Parliament (EP) Temporary Committee of Inquiry into BSE⁷⁸ was found to be highly critical of the administration of BSE measures taken by the UK government. It was stated in the report that “*most of the testimonies...suggest that the UK bears the greatest degree of responsibility. Even the Permanent Secretary and the Chief Veterinary Officer [of the UK government] have admitted that mistakes were made in the management of the BSE crisis.*”

⁷⁶ The Intervention Board is another Executive Agency of the MAFF responsible for receiving and accounting for the European Union’s Common Agriculture Policy Guarantee Funds. It is also responsible for the provision of price support to food producers, processors and traders, issuing and monitoring export licences and supporting a wide range of agricultural products.

⁷⁷ http://www.maff.gov.uk/aboutmaf/dep/dep/chap10/ch10_012.htm. (27/01/99).

⁷⁸ European Parliament Temporary Committee of Inquiry into BSE: Final European Parliament BSE Inquiry Report, 7 February 1997 (http://www.mad-cow.org/final_EU.html).

18.25 Listed below are some of the mistakes made by the UK government which were identified in the EP BSE Inquiry Report:

1. The UK government and the rendering industry had paid insufficient attention to the risks involved in rendering sheep remains into meat-and-bone meal when scrapie [a sheep disease] was endemic in the British sheep population.
2. Although British Ministers were already aware of the existence of BSE in June 1987 and were also aware of the fact that scientists could not determine whether BSE could or could not be transmitted to other species or to human, they decided to do nothing until July 1988 when the ban on cattle feed was applied.
3. The UK government failed to ensure an effective ban on the feeding of meat-and-bone meal to ruminants.
4. The views of certain scientists who could have been considered as more critical were not taken into account by the UK government.
5. The UK government failed to implement the necessary legislation or directives on time.

18.26 The Report concluded that *“The problem, therefore, lies not in any lack of appropriate legislative measures, but in the attitude of the government, which has failed to ensure the proper application of those measures and has not carried out the necessary checks.”*

New Changes under the FSA

18.27 The UK government insisted that local investigations should continue to be managed at local level. Investigations should continue to be led by the relevant health authority’s CCDC (or Consultant in Public Health Medicine in Scotland) and the LA. The FSA’s role generally should be supportive rather than operational, except where an incident required management beyond the local level or where the responsible authorities at local level failed to manage an incident successfully. Where food was identified as a source of an outbreak, and the scale or severity of the hazard warranted central involvement, the FSA would have responsibility for the management of the Food Hazard Warning System, and for liaison with the Chief Medical Officers in England, Wales and Scotland and Northern Ireland to whom major outbreaks would continue to be reported.⁷⁹

⁷⁹ White Paper on The Food Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffd/h/fsa/ d.d. 20/01/99>).

18.28 In cases of food emergencies, the FSA would

1. liaise with Government Departments and their executive agencies at a national and local level, with the Scottish Executive and the Welsh Assembly and with LAs, to ensure a co-ordinated response;
2. prepare plans for emergencies and incidents involving the contamination of food or the food chain with toxic chemical or radioactive materials;
3. organize regular exercises simulating major emergencies and participate in nuclear operators' and overseas emergency exercises;
4. continue the existing monitoring programme on post-Chernobyl issues; and
5. commission research to enhance its ability to respond effectively to emergencies.⁸⁰

⁸⁰ White Paper on The Food Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffd/fsa/ d.d. 20/01/99>).

PART 6 - IMPLICATIONS FOR HONG KONG

19. Current Food Safety Control System of Hong Kong

19.1 At the moment, responsibilities for food safety control in Hong Kong are spread among a number of government departments and the two municipal councils. They are, namely, the Health and Welfare Bureau, the Economic Services Bureau, the Planning, Environment and Lands Bureau, the Department of Health (DHHK), the Agriculture and Fisheries Department, the Provisional Urban Council, the Urban Services Department, the Provisional Regional Council, the Regional Services Department and the Environmental Protection Department.

19.2 The DHHK takes a lead on issues of public health. It is responsible for ensuring a high standard of food and environmental hygiene. It also monitors the safety of imported and locally produced foods. It reports directly to the Health and Welfare Bureau.

19.3 The Agriculture and Fisheries Department is the lead department in areas of production and marketing of agricultural and fisheries produce, enforcement of regulations on plants, pesticides and animal control and country parks. It reports directly to the Economic Service Bureau on matters related to agriculture and fisheries.

19.4 The Environmental Protection Department is responsible for enforcement of environmental protection legislation; development of sewage and waste disposal programmes; planning against pollution and provision of waste treatment and disposal services. It reports directly to the Planning, Environment and Lands Bureau.

19.5 The Urban Services Department and the Regional Services Department are the executive departments of the two municipal councils. They are responsible for hygiene, cleansing, licensing of food premises, control of hawkers, markets, abattoirs, amongst other duties. Though the two departments are government departments, they are not responsible to any Policy Secretary in the Government Secretariat.

19.6 The power to make subsidiary legislation on food safety is shared by the DHHK and the two municipal councils. The two municipal councils can also make by-laws applicable to their own respective regions.

20. The “Avian Flu Crisis”

20.1 Influenza A H5N1 is a new viral human pathogen. It was first detected between March and May 1997 in chickens in three farms in the New Territories, where it killed about 6 800 birds. Until May 1997, when a three-year old boy hospitalized with acute respiratory disease died, these viruses had not been known to cause disease in humans. A chronology of the “Avian Flu Crisis” is provided in Appendix XII.

20.2 There were a total of 18 confirmed cases of the H5N1 virus infection. The 18 confirmed cases comprised eight males and ten females, age ranging from one to 60. Nine cases were children under 12. Chicken import from the mainland was suspended from 24 December 1997. From 29-31 December 1997, an exercise was carried out to slaughter all chicken in local chicken farms and all poultry at wholesale markets and retail outlets in Hong Kong.⁸¹

20.3 The “Avian Flu Crisis” has affected the public’s confidence in the government’s ability to control foodborne disease. It revealed that there was fragmentation and lack of co-ordination between the different bodies involved in policy-making, monitoring and control of food safety. There were considerable overlaps and gaps among the different government departments and municipal councils. Enforcement practice and standards were different from one region to another. In short, the problems can be summarized as “... *problems of unclear responsibility in ordinary times, and has created difficulties in co-ordination and decision-making in times of crises.*”⁸²

21. How Such Problems are Tackled in the United States and the United Kingdom

21.1 Paragraphs 21.2-21.25 will analyze the food safety control systems in the US and the UK. They will also discuss the effectiveness of these two systems in handling the above mentioned problems.

Problem - Co-ordination

A Single Body

21.2 Findings in the US and the UK reveal that both governments adopt the same approach to tackle this problem - by assigning the responsibility of co-ordination to a single body: in the US, it is FORCG; in the UK, it will be the FSA.

⁸¹ Department of Health, Hong Kong, Update, 23 January 1998 (<http://www.outbreak.org/cgi-unreg/dynaserve.exe>)

⁸² Lam, The Consultant’s Report on Food Safety and Environmental Hygiene Services in Hong Kong, November 1998, paragraph 2.13.

21.3 In the US, each concerned agency will designate one person as the outbreak co-ordinator. This position is established as a formal institutional position. In the UK, the FSA would liaise with different government departments at a national and a local level, to ensure a co-ordinated response.

Terms of Reference

21.4 There are well defined terms of reference or scope of work in order to ensure the agency works properly. Paragraph 18.9 gives the terms of reference of FORCG and paragraph 12.2 gives the terms of reference of FSA.

Communication System

21.5 In the US, the FDA, FSIS and CDC maintain a 24-hour telephone service for emergency consultation and action. The FDA's Division of Emergency and Investigational Operations will serve to co-ordinate with other agencies. CDC also stations Epidemic Intelligence Service Officers in 15-20 States each year to support surveillance and emergency response at the State level.

21.6 In order to improve communication with State agencies, the FDA has implemented a fax-on-demand and fax broadcast system. These systems serve to provide an early alert or update to foodborne disease investigations. Internet and other communication tools are also widely adopted by the FDA and CDC to ensure effective follow up and control of outbreaks among State and Federal agencies.

21.7 In the UK, there are various systems to detect food poisoning and to disseminate the information to all the relevant parties. They are the 'Food Hazard Warning System', the 'Food Poisoning Notifications System', the 'Laboratory Reporting System' and the 'Epidemiology Communication and Information Network System'. These systems are essential components to disseminate information to the different government departments and LAs and to formulate any co-ordinated central action as appropriate.

Problem - Fragmentation of Services

21.8 The problem of fragmentation of services may be caused by over-specialization of services with inadequate co-ordination. The UK is currently facing the same problem. The solution they have adopted is to form a single body to bring together the disparate interests and to create a unified structure, i.e. the formation of FSA. By grouping the different agencies and government departments under the same roof, it is hoped that there would be improvement over the present system of different departments each dealing with its compartmentalized responsibilities. Swift response and decisive actions are expected as co-ordination is under the overall command of the FSA.

21.9 Though the US did not experience the problem of fragmentation to the same extent as the UK, the US government tried to enhance co-ordination among different agencies by introducing the NFSI. One of the initiatives of the NFSI has been the creation of FORCG which comprises representatives from different agencies and advisory bodies. FORCG provides a forum for the agencies to develop outbreak response procedures so as to improve co-ordinated response to interstate outbreak.

Problem - Different Enforcement Standards

21.10 The US tackle this problem by adopting one single standard: HACCP. Though HACCP is applicable to seafood, meat and poultry only, the FDA is considering implementing HACCP as a standard throughout the food supply system. Moreover, the enforcement of the standards is carried out by two agencies (either the FDA or FSIS) depending on food types. Therefore, there will be consistent application of food standard for that particular type of food.

21.11 In the UK, LAs apply different enforcement standards depending on the local circumstances. If the enforcement responsibilities are taken away from the LAs, there might be resistance from them as this might reduce the funding they would receive from the central government. Therefore, only the responsibilities of co-ordination, monitoring and auditing of local food law enforcement activities are delegated to the FSA with the enforcement responsibilities remaining with the LAs. Nonetheless, the FSA is given the 'reserve powers' to take enforcement action and direct enforcement responsibilities where it is *unreasonable* for individual LAs to proceed.

Problem - Delineation of Responsibilities

21.12 In the US, the responsibilities for food safety control are divided by food types and the responsibilities for each food type are delegated to one single agency. Hence, there is no overlap of duties. As such, people know which agency they should approach when they have problems related to food.

21.13 In the UK, there is a certain overlap of duties between the MAFF and the DH and also, between the EHOs and the TSOs in the LAs. The UK government hopes that by structuring FSA in such a way that there will be clear and open lines of responsibilities and communication, the system would be more effective. Current institutional barriers will be removed or circumvented by amalgamating different agencies in MAFF with the relevant divisions in the DH.

Public Participation through Advisory Committees

21.14 Nearly all the US government agencies involved in food safety have their own advisory committees. Their primary role is to provide independent and expert advice to the agencies. Committee membership includes experts, representatives of consumer groups, food businesses and the general public.

21.15 One of the key components of the UK food safety control system is the advisory committee system. The UK government has set up various advisory committees to advise the Ministers in different food related matters. The mechanism is to ensure that the interests of the agricultural groups, food industries groups and consumer groups are properly represented in the political and legislative process.

Public Education

21.16 Both the FDA and FSIS take the responsibility for educating the industry and the public on safe food handling practices. They organize education and training programmes for the industry and the public so as to increase their awareness on food safety and environmental hygiene.

21.17 At the moment, health education on food matters is handled by MAFF and DH. The FSA, once established, would take over the responsibility of MAFF and DH in this area. The FSA would continue to issue and distribute booklets on food safety matters to the food industry and the public. They would also advise the Education Departments in England, Wales, Scotland and Northern Ireland on food aspects in school curriculums, such as cooking, storage and preparation.

Sanitation and Enforcement of Environmental Hygiene

21.18 As discussed in paragraph 8.1, all plants in the US are required to implement the SSOPs to ensure effective sanitation during operations. In particular, the Pathogen Reduction and HACCP rule of the FSIS requires the meat and poultry slaughterhouses to develop and implement written SSOPs. This will enhance the knowledge of the front line food handlers on food hygiene. It also reminds them to pay more attention to the hygiene condition while they are preparing food.

21.19 In the UK, all food businesses are required to adopt the first five principles of HACCP (as described in paragraph 5.3) under the EC Regulations and Directives. These Regulations also require all food handlers to be trained in food hygiene. They further encourage the food industry to follow voluntarily the "Industry Guides to Good Hygiene Practice".

21.20 Obviously, both the US and the UK put much emphasis on good sanitation and environmental hygiene. By making rules and regulations, this message is being put across to those in the food industry.

Control on Imported Products

21.21 The US has adopted stringent control on imported food. In particular, for meat and poultry products, the FSIS evaluates the exporting country's laws, regulations and its food safety system and only when they all comply with the US standards could the country export the meat and poultry products to the US.

21.22 The UK also adopts a tight control on imported food. For example, countries exporting foods of animal origin to the UK must apply the same food safety standards as the EU. All imported foods must be accompanied by health certificates and they are subject to veterinary checks or inspections on entering.

21.23 Both the US and the UK apply the same standards of food safety to domestic and imported food products.

Assessment of Outbreak of Foodborne Disease

21.24 As shown in Appendix X, the assessment of outbreak of foodborne disease in the UK is very systematic. The UK adopts a step by step approach to assess the seriousness of an outbreak of a foodborne disease and takes appropriate control measures. The OCG also demonstrates close collaboration between various departments so that the responsibilities for the surveillance, prevention and control of communicable diseases would be exercised jointly by these authorities.

21.25 As for the FDA's assessment of the outbreak of foodborne disease, RLS is awaiting information from the FDA.

22. How Such Problems are Tackled in Hong Kong

22.1 In view of the problems exposed by the “Avian Flu Crisis” as described in paragraph 20.3, the Hong Kong Government commissioned a consultant to undertake an independent consultancy study on food safety control and environmental hygiene services in Hong Kong. “The Consultant’s Report on Food Safety and Environmental Hygiene Services in Hong Kong” (“The Consultant’s Report”) was published in November 1998. The Consultant has criticized that the existing structure for food safety control is fragmented and that grey areas exist in the division of responsibilities in various aspects. He has proposed a new structure for food safety control. The Hong Kong Government has accepted *in principle* most of the recommendations contained in the Consultant’s Report, but has yet to scrutinize the details.⁸³ A Task Force would be set up by the Government to study the recommendations of the Consultant. As of to date, we have not received any indication as to when the Task Force would be set up.

22.2 The Consultant recommended that a new policy bureau, namely, The Environment and Food Bureau (EFB) and a new department, namely, The Department of Food and Environmental Hygiene (DFEH), should be set up. The EFB will provide central co-ordination and direction on environmental protection, environmental hygiene, waste management, food safety and nature conservation policies and facilitate the development of the agricultural and fisheries industries. The responsibilities for food and environmental hygiene currently under the purview of the Urban and Regional Services Departments, the DHHK and the Agriculture and Fisheries Department will be assumed by the new DFEH.⁸⁴ Appendices XIII and XIV show the organization structure of the proposed EFB and the DFEH.

22.3 Given that the Consultant’s Report only contains an outline of the proposed structure, we can only provide a broad overview of the structure, functions and outbreak management of the proposed EFB and DFEH.

Proposed Structure

A Single Body

22.4 The Consultant adopted similar approach as the reforms put forward by the UK government - by assigning the responsibility of food safety control and environmental hygiene to a single body: the DFEH.

⁸³ Legislative Council Panel on Health Services, Panel on Environmental Affairs and Panel on Constitutional Affairs, Records of the Joint Meeting of 14 December 1998.

⁸⁴ Constitutional Affairs Bureau, The Administration’s Initial Thinking on the Provision of Municipal Services Bill, 2 February 1999.

Co-ordination

22.5 Both the US and the UK governments designate one person or one authority as the overall co-ordinator to ensure a consistent and co-ordinated response throughout the country. In the case of Hong Kong, we note the Consultant considers that “*there will be swift response and decisive action on the ground as co-ordination will become much easier under the overall command of the Director [of DFEH] working to one Policy Secretary.*”⁸⁵ However, DHHK reports to the Secretary for Health and Welfare whereas DFEH reports to EFB. In the event of an outbreak of foodborne disease, the Secretary for Health and Welfare and Secretary for EFB do not report to each other in terms of hierarchy. It is unclear if the Chief Secretary for Administration should be the authority responsible for overall co-ordination. The problem of co-ordination seems not to have been resolved even under the proposed new arrangement.

Delineation of Responsibilities

22.6 The proposed structure put forward by the Consultant is similar, in broad terms, to the structure of FSA, that is, the responsibilities for food safety control of all food types are grouped under one roof: the DFEH.

Monitoring

22.7 In the UK reform, a Commission of 12 members would be set up to oversee the operations of the FSA. The Commission will involve directly in “*significant operational matters*” dealt with by the FSA and the Commission will be “*seen to be accountable*” for the actions taken by the FSA on these issues. In order to ensure that the Commission is clearly responsible for the operations of the FSA, the Commission will be endowed with all the FSA’s policy and executive powers.

22.8 The Consultant has recommended that an Advisory Council on Food and Environmental Hygiene (“Advisory Council”) should be set up under the new structure of EFB and DFEH, to *advise* the Secretary for EFB and the Director of DFEH on major policy issues. A 19-member Council is proposed, with membership categories comprising public health professionals and academics, LegCo and District Board members, trade representatives, consumer representatives and ex-officio members. The terms of reference of the Advisory Council will be worked out by the Hong Kong Government.

22.9 District Councils are expected to play a greater role in monitoring and providing advice on food and environmental hygiene services.

⁸⁵ Lam, The Consultant’s Report on Food Safety and Environmental Hygiene Services in Hong Kong, November 1998, paragraph 4.07.

22.10 LegCo would monitor food and environmental hygiene services through vetting of the annual Estimates of Revenue and Expenditure of the EFB and DFEH, scrutiny of capital works projects above a certain financial ceiling, as well as other mechanisms for accountability through LegCo Panel discussion and LegCo questions.

Proposed Functions

22.11 The key functions and responsibilities of the proposed DFEH would comprise an Environmental Hygiene Branch, a Food and Public Health Branch, a Veterinary Public Health Division and an Administrative Branch.

22.12 Table 4 compares the responsibilities of the DFEH with the US food-related federal agencies and the FSA of the UK.

Table 4 - Responsibilities of the DFEH and the US, UK Food Safety Control Authorities

Responsibilities	HK	US	UK
Physical, Chemical and Microbiological Safety of Food	DFEH	FDA	FSA
Meat Safety, Hygiene and Inspection of Slaughterhouse	DFEH	FSIS	FSA
Markets, Supermarkets, Restaurants and Food Outlets Inspection	DFEH	State Agencies	LAs
Safety of Imported Food	DFEH	FDA	PHA
Research on Food Safety	DFEH	FDA, CDC, ARS, CSREES	FSA
Nutrition	DFEH, DHHK	FDA	FSA, DH
Food Standards	DFEH	FDA	FSA
Food Labelling	(?)	FDA, FSIS	FSA
Food Technology	(?)	FDA	FSA
Veterinary Advice and Medicines	DFEH	FDA	FSA
Water Safety	WSD	EPA	DETR
Pesticides	DFEH	EPA	FSA
Enforcement of Food Law	DFEH	FDA, FSIS	FSA, LAs
Foodborne Disease Surveillance and Outbreak	DFEH, DHHK	CDC	FSA, LAs
Food Safety Education	DFEH, DHHK	CDC, FSIS, CSREES	FSA

Remark: ? indicates uncertainty as there is no sufficient information to tell which authority is responsible for the task.

WSD Water Supplies Department.

22.13 It is noted from the above table that nearly all the functions relating to food safety control are transferred to the DFEH. It is hoped that by grouping all the responsibilities under central government direction and control, better policy advice, direction and co-ordination could be achieved.

Enforcement Standards

22.14 In the US, there is no overlap of responsibility and there is a consistent application of food standards for a particular type of food as the enforcement of the food standards is carried out by either the FDA or FSIS depending on food types.

22.15 The new structure proposed in the Consultant's Report divides responsibilities of setting of food standards, law enforcement and animal health amongst three divisions within DFEH. The responsibility for setting of food standards lies with the Community Medicine Division, enforcement of food law and standards is split between the Food and Public Health Division and the Veterinary Public Health Division. It is noted in the Consultant's Report that this arrangement "*will ensure effective co-ordination between the "Food and Public Health" and "Veterianry Public Health" functions, which are closely interlinked.*"⁸⁶

Outbreak Management

22.16 In the new structure, there will be no one single department to undertake full responsibilities for outbreak management. The DHHK will continue to be responsible for disease surveillance and monitoring, general public health education, etc. The DFEH will deal with food-related matters and environmental hygiene services. In case of food poisoning, notifications will continue to be received by the DHHK. It will then focus on investigation of victims and other persons exposed to food poisoning and other foodborne disease. The DFEH will carry out investigations and take appropriate actions in connection with the food production chain and environmental hygiene.⁸⁷

22.17 Neither any new outbreak management nor the existing outbreak management is mentioned in the Consultant's Report. However, it is stated in the Consultant's Report that the operation of the existing system of detecting diseases and contaminants in food animals such as pigs, cattle and goats and in certain types of fish such as coral fish will be transferred to the DFEH. The exact mode of transfer is not clear from the Consultant's Report.

⁸⁶ Lam, The Consultant's Report on Food Safety and Environmental Hygiene Services in Hong Kong, November 1998, paragraph 6.07.

⁸⁷ Constitutional Affairs Bureau, The Administration's Response to Questions on the Consultancy Report on Food Safety and Environmental Hygiene Services, 13 January 1999.

22.18 We tried to simulate government response with the new structure in the event of an outbreak of foodborne disease. However, we have not been able to make an accurate simulation due to lack of clear information from the Hong Kong SAR Government and the Consultant's Report. It is unclear which authority (DHHK or DFEH) should be responsible for the following tasks: (1) observation of food-related disease; (2) investigation of outbreak; and (3) co-ordination of investigation and control measures. Please refer to Table 5 for details.

22.19 Government explanation to LegCo on the proposed new structure is extracted as follows:

“the new EFB was expected to take the lead and would co-ordinate the efforts of government department in future food-related crises. It would act as the centre of all relevant information for reporting to the Hong Kong Government. As regarding the particular areas of work to be taken up by the DHHK and the new DFEH,.....such would depend upon the nature of individual cases.”

*“the proposed new structure had taken into consideration the fact that prevention, surveillance and control of food-related infectious disease involved a wide range of cross-disciplinary and inter-sectoral activities. In respect of food safety control from primary production to the retail end, it would be quite impossible for the DHHK to be solely in charge. Under the new structure, two bureaux (namely, the Health and Welfare Bureau and EFB) and two departments (namely, the DHHK and DFEH) would be involved in future cases of food-related diseases.”*⁸⁸

⁸⁸ Legislative Council Panel on Health Services, Panel on Environmental Affairs and Panel on Constitutional Affairs, Minutes of Meeting, 15 January 1999, paragraphs 8 and 15.

Table 5 - Brief Comparison of Authorities for Handling Food-Related Outbreak

	Vegetables				Fish				Chicken				Beef			
Possible causes of outbreak	Pesticide contamination				Ciguatera toxin				H5N1 virus				E coli: O157 bacteria			
	HK (existing)	HK (proposed)	US ¹	UK ²	HK (existing)	HK (proposed)	US ¹	UK ²	HK (existing)	HK (proposed)	US ¹	UK ²	HK (existing)	HK (proposed)	US ¹	UK ²
Routine surveillance	AFD	DFEH	FDA	LAs + FSA	AFD	DFEH	FDA	LAs + FSA	AFD	DFEH	FSIS	LAs + FSA	DH	DFEH	FSIS	LAs + FSA
Hygiene inspection of food premises / markets	USD / RSD	DFEH	State Agencies	Las	USD / RSD	DFEH	State Agencies	LAs	USD / RSD	DFEH	State Agencies	LAs	USD / RSD	DFEH	State Agencies	LAs
Observation of outbreak of food related disease	DH	?	CDC	FSA	DH	?	CDC	FSA	DH	?	CDC	FSA	DH	?	CDC	FSA
Investigation of outbreak	DH + AFD + USD / RSD	?	CDC	LAs + FSA + DH	DH + AFD + USD / RSD	?	CDC	LAs + FSA + DH	DH + AFD + USD / RSD	?	CDC	LAs + FSA + DH	DH + USD / RSD	?	CDC	LAs + FSA + DH
Co-ordination of investigation and control measures	?	?	FORCG	FSA	?	?	FORCG	FSA	?	?	FORCG	FSA	?	?	FORCG	FSA

Remarks:

- Responsibilities for different food types are clearly delineated. Details in Section 10 above.
- It is proposed that FSA be established by end-1999.
- ? indicates lack of information as to which authority is responsible for the exact task.
- (existing) indicates existing arrangement.
- (proposed) indicates arrangement in accordance with information obtained from the Consultant's Report and LegCo papers.

Appendix I**Advisory Committees for the US Government Agencies Relating to
Food Safety Control and Environmental Hygiene****FDA**

I.1 All of the FDA's advisory committees are scientific and technical committees. Their primary role is to provide independent expert scientific advice to the Agency in product evaluation. Committee members are usually individuals having recognized expertise and judgement in a specific field. Examples of the FDA's advisory committees relating to food safety are Device GMP Advisory Committee of the Centre for Devices and Radiological Health (CDRH) and Food Advisory Committee of the Centre for Food Safety and Applied Nutrition (CFSAN).

FSIS

I.2 The Advisory Committee on Meat and Poultry Inspection provides advice and recommendations to the Secretary of Agriculture on Federal and State meat and poultry programmes pursuant to the Federal Meat Inspection Act and the Poultry Products Inspection Act. The Committee has three standing subcommittees to deliberate on specific issues and make recommendations through the whole Committee to the Secretary of Agriculture. The FSIS Administrator is the Committee Chair. Committee membership is drawn from representatives of consumer groups, producers, processors and marketers from the meat and poultry industry and State government officials.⁸⁹

EPA

I.3 The advisory body of EPA is the National Drinking Water Advisory Council (NDWAC). The Council advises EPA on all activities relating to drinking water. The 15-member committee was created by the Safe Drinking Water Act. It comprises of five members of the general public, five representatives of State and local agencies concerned with water hygiene and public water supply and five representations of private organizations and groups demonstrating an active interest in water hygiene and public water supply.

⁸⁹ FSIS, "National Advisory Committee on Meat and Poultry Inspection" in Public Meeting, 1 September 1998.

Others

I.4 National Advisory Committee on Microbiological Criteria for Foods (NACMCF) provides advice and recommendations to the Secretary of Agriculture and the Secretary of Health and Human Services on the microbiological safety and wholesomeness of food. The Committee also provides guidance to the Departments of Commerce and Defense.⁹⁰

I.5 On 25 August 1998, President Clinton issued an Executive Order to establish the President's Council on Food Safety so as to develop a comprehensive strategic plan for Federal food safety activities. This Council makes recommendations to the President on how to advance Federal efforts to implement a comprehensive science-based strategy to improve the safety of the food supply and to enhance co-ordination among Federal agencies, State, local, tribal governments and the private sector. It also advises Federal agencies in setting priority areas for investment in food safety. It comprises the Secretaries of Agriculture, Commerce, Health and Human Services, the Director of the Office of Management and Budget (OMB), the Administrator of the EPA, the Assistant to the President for Science and Technology/Director of the Office of Science and Technology Policy, the Assistant to the President for Domestic Policy and the Director of the National Partnership for Reinventing Government.

⁹⁰ FSIS, "National Advisory Committee on Microbiological Criteria for Foods" in Notice of public meeting, 9 March 1999.

Appendix II

Advisory Committees Relating to Food Safety and Environmental Hygiene, United Kingdom

Statutory Committees

Advisory Committee on Pesticides (ACP)

- The Food and Environmental Protection Act 1985 states that Ministers shall consult the ACP as to regulations which they contemplate making, as to approvals which they contemplate giving, revoking or suspending and as to conditions to which they contemplate making approvals subject. ACP publishes evaluation documents of new active ingredients and reviewed products, as well as an annual report.

Veterinary Products Committee (VPC)

- VPC is created under section 4 of the Medicines Act 1968.
- its remit is to give advice to the Licensing Authority (Agriculture and Health Ministers) with respect to safety, quality and efficacy in relation to the veterinary use of any substance or article to which the Medicines Act applies, and to promote the collection of information relating to suspected adverse reactions.

Non-Statutory Committees

Advisory Committee on the Microbiological Safety of Food (ACMSF)

- a broadly based committee which advises Ministers on the risks to humans of micro-organisms which are used or occur in food, and on the exercise of powers in the Food Safety Act 1990 relating to the microbiological safety of food.
- when the ACMSF publishes a report containing advice to the UK government, the UK government has to publish its response simultaneously.

Advisory Committee on Novel Foods and Processes (ACNFP)

- it advises Ministers on any matters relating to the irradiation of food, and the manufacture of novel foods including genetically modified foods and foods produced by novel processes.

Committee on Medical Aspects of Food and Nutrition Policy (COMA)

- it considers and advises Ministers on the medical and scientific aspects of nutrition and developments in the agricultural and food industries.

Committee on Medical Aspects of Radiation in the Environment (COMARE)

- it assesses and advises the UK government on the health effects of natural and man-made radiation in the environment and to assess the adequacy of the available data and the need for further research.

Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT)

- a specialized committee, it gives advice on additives in food once a 'case of need' has been established by the Food Advisory Committee (FAC); it also advises the ACNFP on Toxicological Safety.

Consumer Panel

- it comprises individuals nominated in a personal capacity by leading consumer organizations;
- its role is to represent the views of ordinary consumers to Ministers on issues of concern about food, and to advise on the transparency of food policies and on the transmission of advice and information on food safety, diet and nutrition.

Food Advisory Committee (FAC)

- a broadly based committee which advises Ministers on matters relating to the labelling, composition and chemical safety of food.

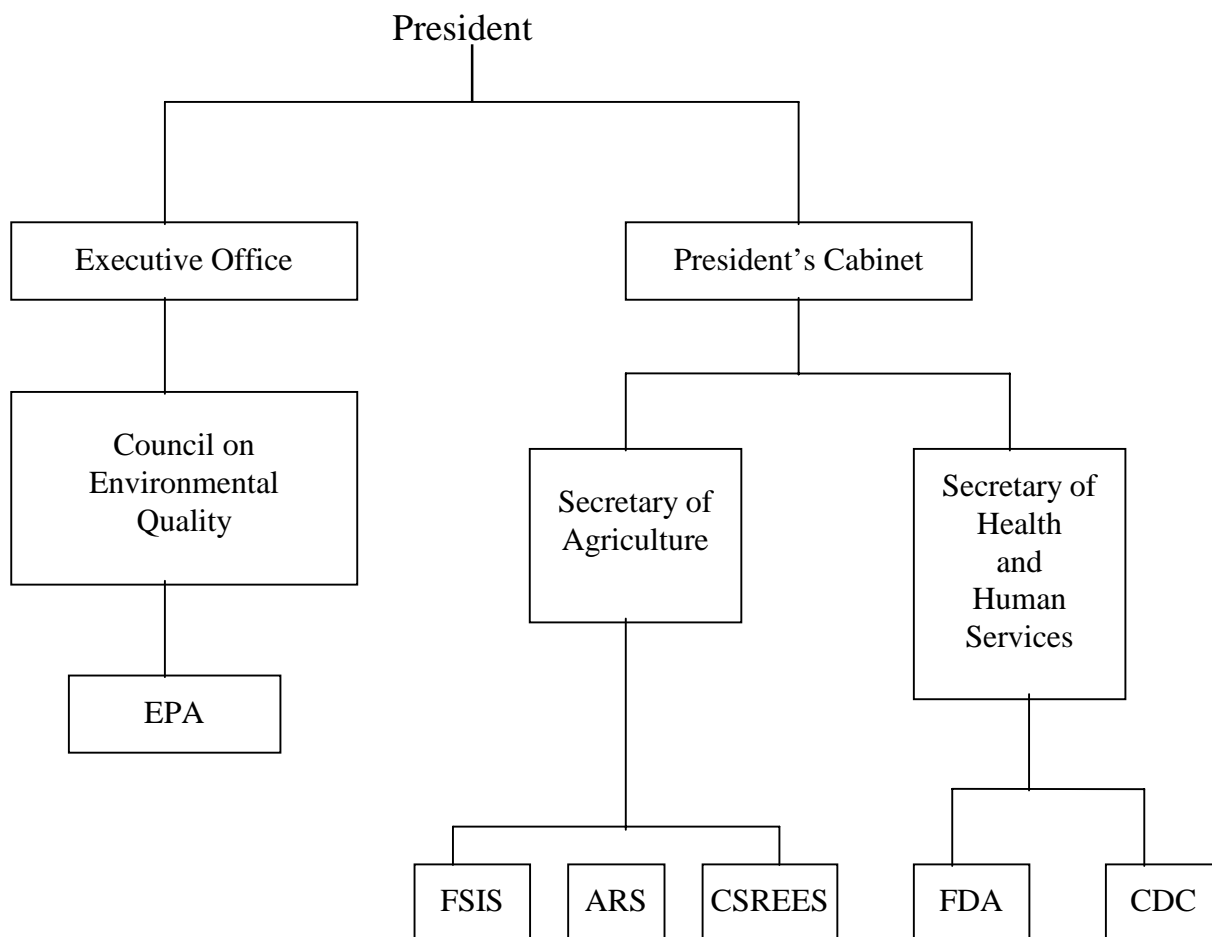
Spongiform Encephalopathy Advisory Committee (SEAC)

- it advises the UK government on all matters relating to BSE and Creutzfeldt-Jakob Disease (CJD). Membership includes at least a geneticist, an expert from the Institute of Animal Health, a neuropathologist, a food toxicologist or gastro-intestinal immunologist and a representative of the public interest.

Source: White Paper on The Food Agency: A Force for Change, 14 January 1998 (<http://www.official-documents.co.uk/document/maffdh/fsa/d.d.20/01/99>).

Appendix III

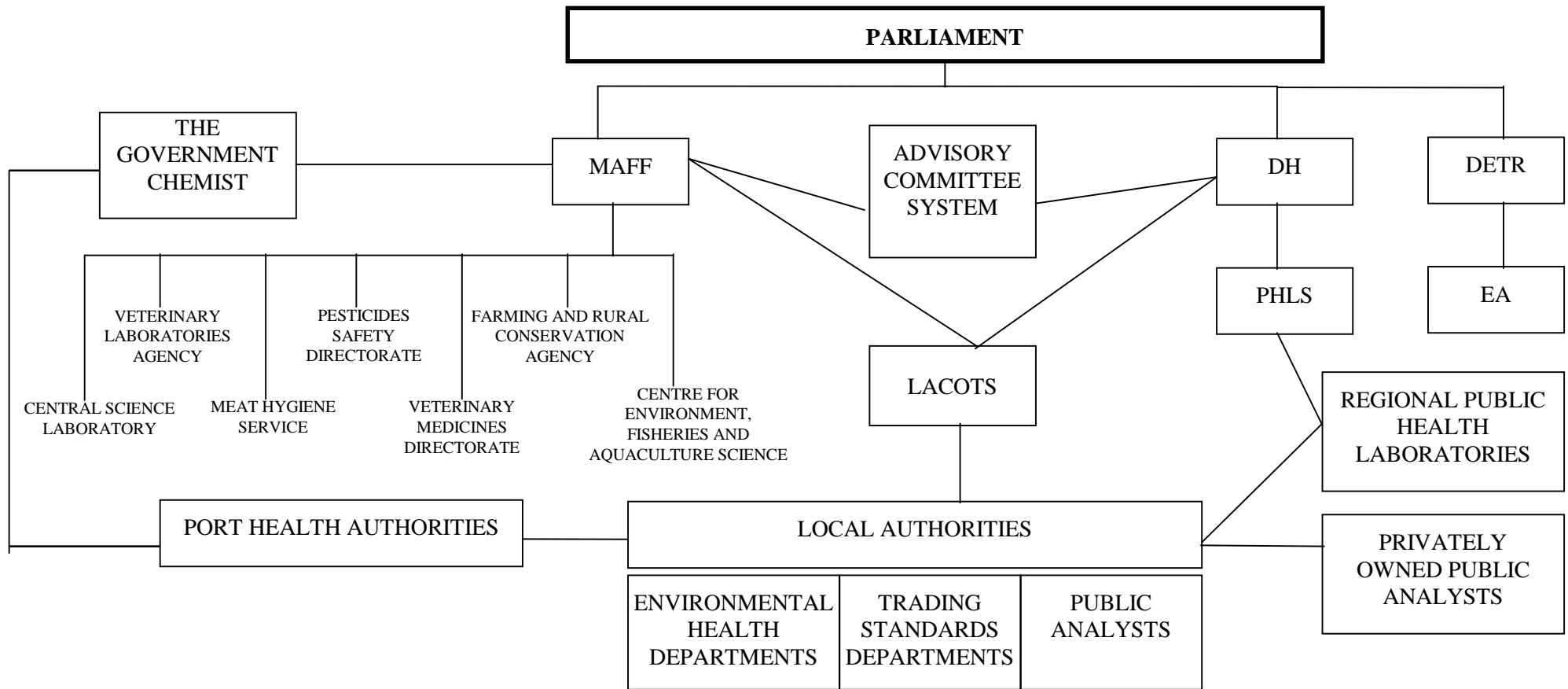
**Organization Chart of the Federal Agencies Responsible
for Food Safety in the US**



- ARS - Agricultural Research Service
- CDC - Centers for Disease Control and Prevention
- CSREES - Cooperative State Research, Education, and Extensions Service
- EPA - Environmental Protection Agency
- FDA - Food and Drug Administration
- FSIS - Food Safety and Inspection Services

Appendix IV

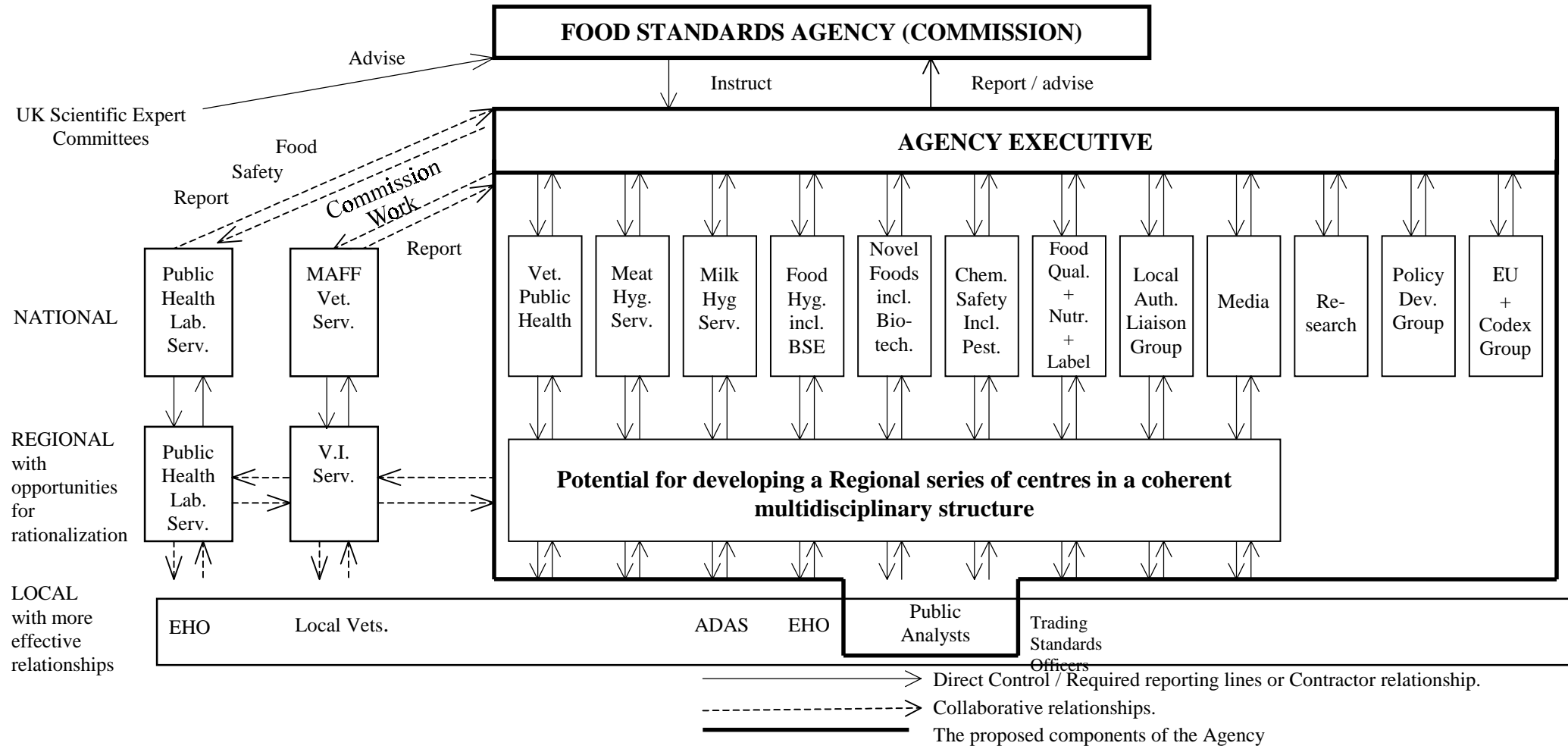
Key Features of the Current System in England



Source: James, *An Interim Proposal: Food Standards Agency*, 30 April 1997, p. 12-13

Appendix V

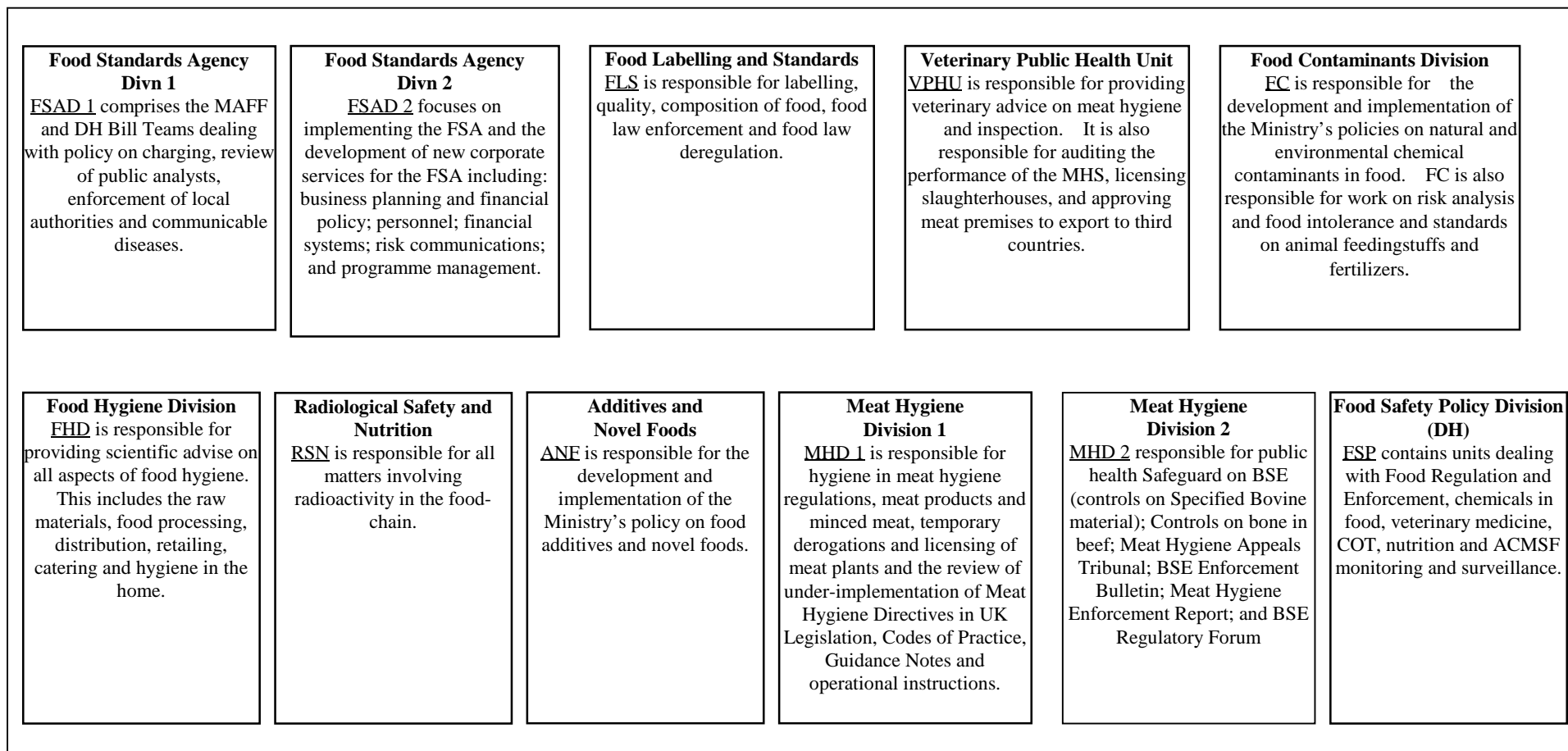
Proposed Components of the Food Standards Agency of the UK



Source: James, *An Interim Proposal: Food Standards Agency*, 30 April 1997, p. 7.

Appendix VI

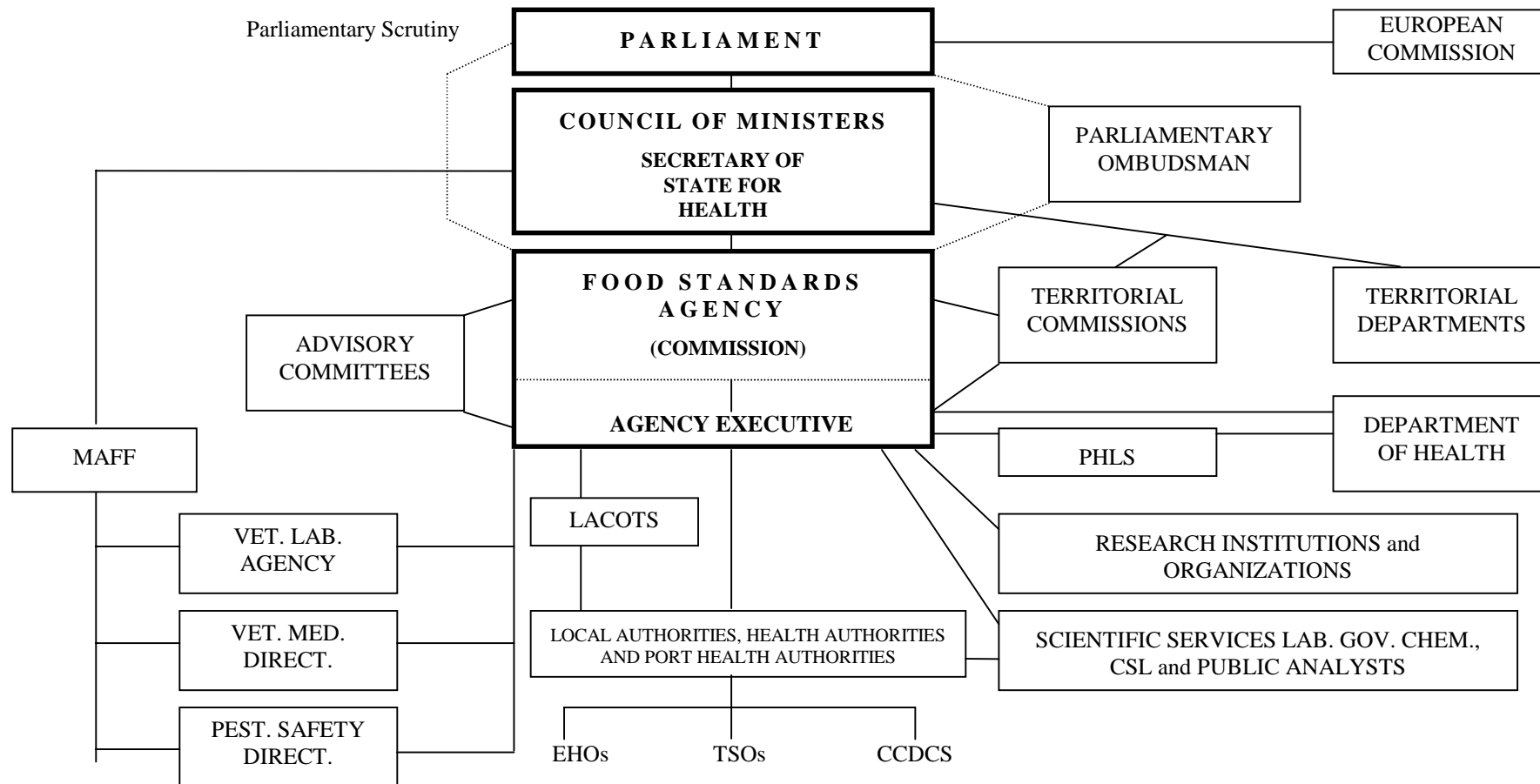
Organization Chart of the Joint Food Safety and Standards Group



Source: Ministry of Agriculture, Fisheries and Food, UK.

Relationships of the Food Standards Agency of the UK

Appendix VII



Source: James, *An Interim Proposal: Food Standards Agency*, 30 April 1997, p. 7.

Appendix VIII

Actions Taken by USDA Since the Outbreak of Foodborne Disease in Western States in January 1993

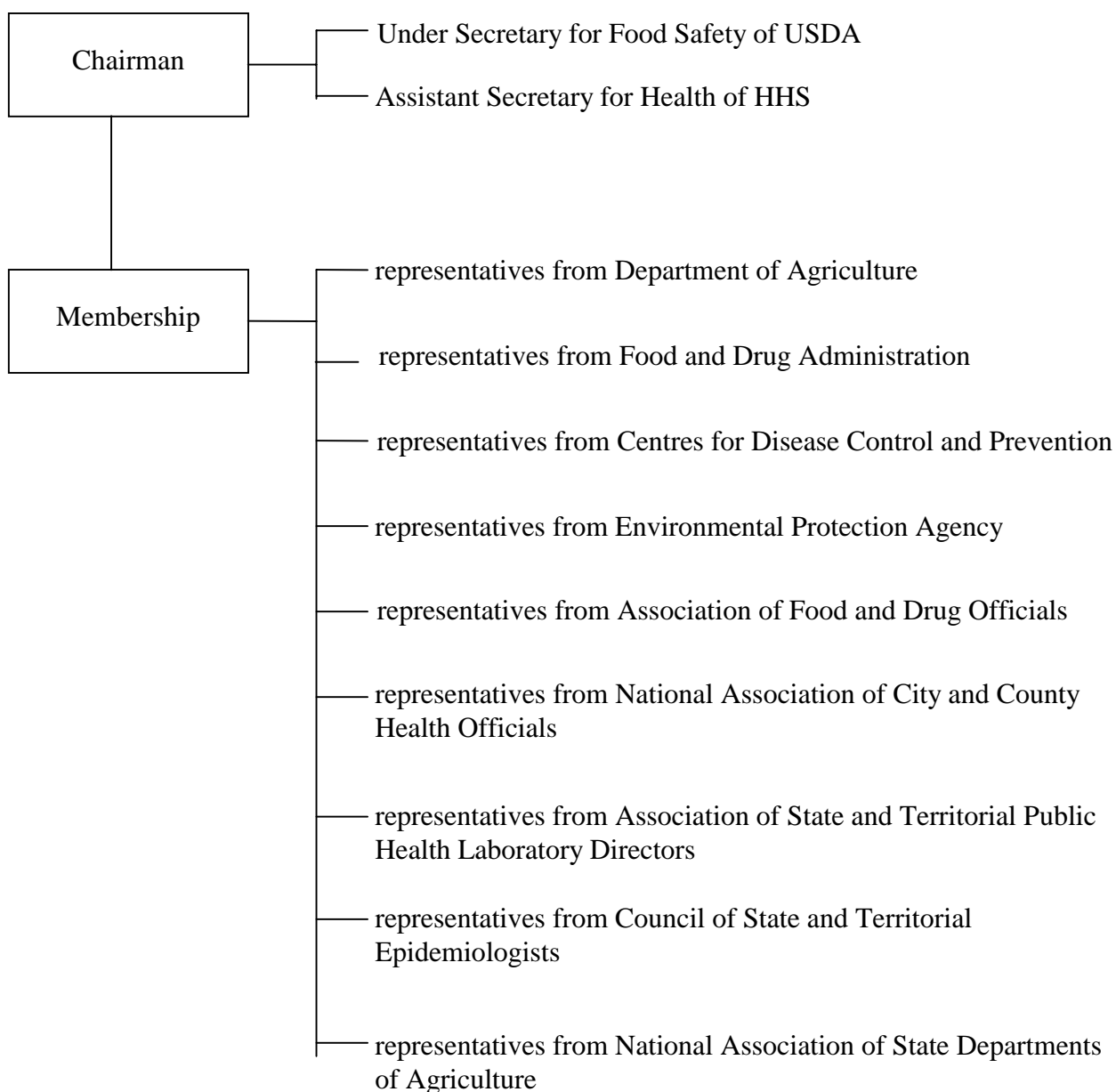
1. Initiated unannounced reviews at 1 000 meat and poultry plants nationwide to enforce intensified zero tolerance requirements for faecal contamination on beef products.
2. Required safe handling and cooking instructional labels on raw meat and poultry products.
3. Introduced a strategy to change meat and poultry inspection from command and control supervision of industry to a system that prevents hazards to the food supply from the farm to the table.
4. Declared the bacterium E coli O157:H7 an adulterant in raw ground beef and initiated a nationwide sampling programme in federally inspected plants and retail stores that process ground beef.
5. Prepared a regulation to overhaul the USDA food safety system by requiring the mandatory implementation of HACCP systems and testing for bacteria in plants that slaughter and grind meat and poultry for distribution as raw product.
6. Accelerated the review of requests for trials of technologies designed to improve food safety in meat and poultry plants.
7. Initiated review of process controls used for fermented dry sausage and recommended revisions to industry's GMP following an outbreak of E coli O157:H7 linked to the product.
8. Increased funding for food safety research, including the development of methods to detect and enumerate E coli O157:H7.
9. Elevated food safety responsibilities in a new sub-Cabinet Office of the Under Secretary for Food Safety.
10. Established an FSIS liaison at the CDC to assist in tracking foodborne disease trends and causes and established an Epidemiology and Emergency Response Programme to investigate foodborne disease outbreaks in conjunction with CDC and the States.

11. Initiated an agreement with the CDC and the FDA to conduct sentinel site surveys at five locations in the US. The study will provide much needed baseline data regarding the incidence of foodborne disease, attributable to consumption of meat, poultry and other foods. The study will provide measures for better estimates of the incidence of foodborne disease and provide a baseline to assess the impact of new food safety initiatives.
12. Developed public information programmes and educational materials such as videos and compact discs for radio stations about safe food handling, targeting specific audiences such as school children, day care centers, pediatricians, fast food restaurant workers, senior citizens and State and local health departments. Also provided information kits to food and health page editors, magazine editors throughout the country.
13. Identified more than 400 pages of unnecessary regulations for elimination or change so that inspectors and plants could focus resources on food safety.

Source: FSIS, [Key Facts: USDA's Food Safety Accomplishments Since 1993](#), July 1996

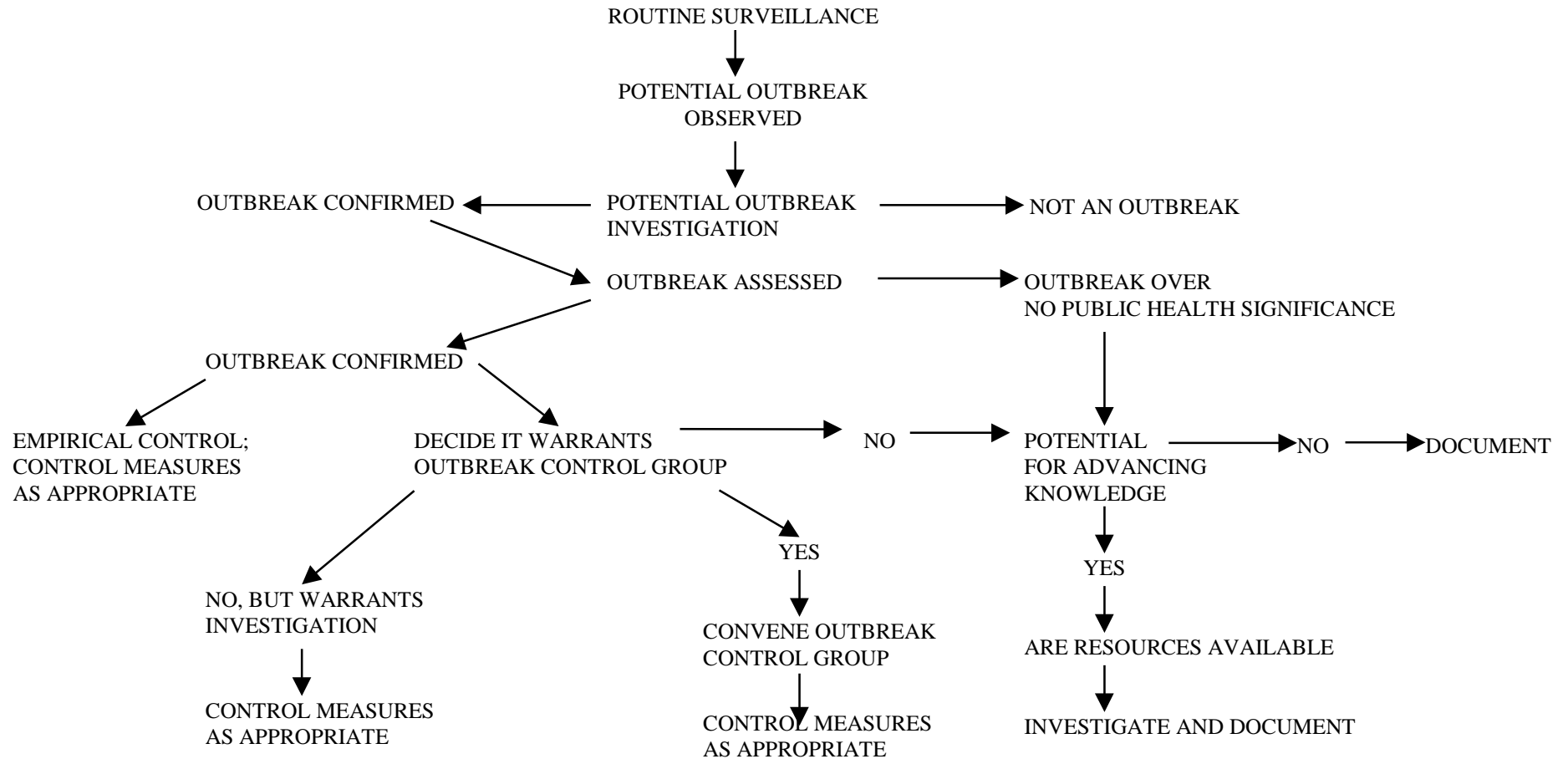
Appendix IX

**Membership of the Food Outbreak Response
Co-ordinating Group in the US**



Appendix X

ASSESSMENT PROCEDURES OF AN OUTBREAK IN THE UK



Source: Department of Health, UK, Management of Outbreaks of Foodborne Illness, December 1994, p. 115.

Appendix XI

A BSE Chronology

Date	Event
November 1986	Disease identified by Central Veterinary Laboratory.
April 1987	Initial epidemiological studies started.
5 June 1987	No knowledge of whether the disease would be transmissible or not.
21 April 1988	Southwood Working Party announced.
22 June 1988	Interim advice received from Southwood to destroy affected cattle; proposed feed ban.
7 July 1988	Decision to introduce slaughter policy announced.
18 July 1988	Ruminant feed ban comes into force.
8 August 1988	Bovine Spongiform Encephalopathy (Amendment) Order 1988 (SI 1988 No 1345) and the Bovine Spongiform Encephalopathy Compensation Order 1988 (SI 1988 No 1346) came into effect which provided for slaughter policy and compensation to be paid at 50% value for confirmed cases, 100% for negative; both subject to a ceiling.
15 November 1988	Further interim advice received from Southwood - extend feed ban and destroy milk from infected cattle.
30 November 1988	Decision announced to prolong feed ban and prohibit the use of milk from suspect animals for any purpose other than feeding to the cow's own calf.
27 February 1989	Southwood Report published and Government response announced (all recommendations have or will be introduced).
27 February 1989	Establishment of Tyrrell Committee on research announced (one of Southwood's recommendations)
10 June 1989	Tyrrell Report received by Government.

Date	Event
13 June 1989	Decision to introduce offals ban announced.
28 July 1989	EC ban on export of cattle born before 18 July 1988 and offspring of affected or suspect animals (Decision 89/469/EEC).
9 January 1990	Publication of Tyrrell Report and Government response (all top and medium priority work recommended either under way or would be undertaken).
1 March 1990	EC restricts exports of cattle to those under six months which are slaughtered before that age (Decision 90/59/EEC made 7 February).
30 March 1990	Administrative ban on export of specified offal and certain glands and organs (for uses other than human consumption) to other Member States.
1 April 1990	Disease made notifiable to European Commission (Decision 90/134/EEC made 6 March).
3 April 1990	Announcement about the establishment of the Spongiform Encephalopathy Advisory Committee (SEAC).
17 May 1990	Announcement that decisions about breeding from offspring of affected cows should be left to individual farmers and their veterinary advisors.
27 March 1991	First case announced in BSE offspring born after ruminant feed ban.
14 July 1993	100 000 confirmed case of BSE in Great Britain announced in response to a Parliamentary Question, as an update to the UK Progress Report to the Office Internationale des Epizooties (OIE).
15 August 1995	The Specified Bovine Offal Order 1995 (SI 1995 No 1928) took effect. The main changes introduced were tighter controls on record keeping; a prohibition on the removal of brains and eyes so that the whole skull must be disposed and a prohibition on the removal of the spinal cord from the vertebral column apart from in slaughterhouses.
20 March 1996	SEAC announced that the CJD Surveillance Unit had identified a previously unrecognized and consistent disease pattern. The Committee concluded that although there was no direct evidence of a link, the most likely explanation was that these cases were linked to exposure to BSE before the introduction of the SBO ban in 1989.

Date	Event
20 March 1996	The UK government announced its intention to consult on further control measures following advice from SEAC. The measures were that carcasses from cattle aged over 30 months must be deboned in specially licensed plants supervised by the Meat Hygiene Service and that the trimmings kept out of the food chain; and that the use of mammalian meat-and-bone meal in feed for all farm animals be banned.
28 March 1996	The UK government announced new BSE controls, the calf slaughter scheme and financial aid for the rendering industry.
3 April 1996	The UK government announced changes to the Beef (Emergency Control) Order and the introduction of a 30-month slaughter scheme to ensure that all bovine animals over the age of 30 months at the time of slaughter would not enter the human food or animal feed chain. This scheme replaced the scheme for compulsory deboning recommended by SEAC.
23 April 1996	The Fresh Meat (Hygiene and Inspection) (Amendment) Regulations 1996 (SI 1996 No 1148) permits slaughterhouses to participate in the schemes slaughtering cattle over 30 months and calves under ten days old. Normally slaughterhouses are only permitted to slaughter animals intended for human consumption. Permission to slaughter these scheme animals is subject to strict separation from any meat intended for sale for human consumption.
21 June 1996	Framework for lifting the export ban agreed at Florence European Council.
18 July 1996	European Parliament voted to set up the Temporary Committee of Inquiry into the Commission and UK handling of BSE.
16 December 1996	Ministers announced that the backlog of animals waiting to be slaughtered under the Over Thirty Month Scheme had been cleared.
16 December 1996	The selective cull of cattle most at risk of BSE was announced. This means that the UK had acted on all five pre-conditions of the Florence agreement to lift the export ban on British beef.
6 February 1997	Report of the European Parliament Temporary Committee of Inquiry published. This was critical of the UK handling of the BSE problem.

Date	Event
17 March 1997	BSE Regulatory Forum set up. It brought together representatives from UK Agriculture Departments, State Veterinary service, the Meat Hygiene Service, the Intervention Board and Local Authorities with the aim of developing a more integrated approach to enforcement of BSE controls.
18 April 1997	SEAC confirmed that current measures to protect consumers were appropriate.
31 July 1997	The Minister announced the setting up of a new computerized cattle tracing system which should be operational during 1998 and would be managed in Workington by a new service - the British Cattle Movement Service.
15 September 1997	MAFF and Department of Health published a review of SEAC. Minister confirmed SEAC's key role.
21 September 1997	The Fresh Meat (Hygiene and Inspection) (Amendment) Regulations 1997 amended the 1995 Regulations, removed the provision for the slaughter of private kill animals, thereby ensuring that all red meat animals killed in slaughterhouses for human consumption were subject to full meat inspection.
2 October 1997	A proposal for a scheme to lift the beef export ban for meat from animals born after 1 August 1996 was formally submitted to the European Commission. The proposal included plans for the compulsory slaughter of all offspring born to BSE-infected cows on or after 1 August 1996.
24 October 1997	SEAC concluded that no further measures governing beef and beef products for human consumption were necessary.
7 November 1997	European Parliament Temporary Committee produced its final report on BSE. This was endorsed by the European Parliament on 19 November.
22 December 1997	The Government announced the Public Inquiry into BSE to be conducted by Lord Justice Phillips. (The Phillips' Inquiry)
5 May 1998	European Court of Justice final decision. This upheld the validity of the export ban on UK beef.

Source: MAFF, [MAFF BSE Information: A BSE Chronology](http://www.maff.gov.uk/animalh/bse/chronology.html) (http://www.maff.gov.uk/animalh/bse/chronology.html d.d. 10/03/99).

Appendix XII**A Chronology of The Avian Flu Crisis**

Date	Event
Early 1997	<ul style="list-style-type: none"> At least 4 500 chickens died from H5N1 at three farms and hundreds of thousands of birds were reported to have died in similar outbreaks in southern China.
21 May 1997	<ul style="list-style-type: none"> A three-year old boy died after contracting an influenza strain that has never before been seen in humans. A specimen from the boy's trachea was identified as influenza A of H5N1.
16-17 August 1997	<ul style="list-style-type: none"> Laboratories at the Agriculture and Fisheries Department of Hong Kong and the University of Hong Kong were testing samples from chickens and pigs to see if the virus was still around.
22 August 1997	<ul style="list-style-type: none"> DHHK announced the death of the three-year old boy who was diagnosed with influenza A virus of H5N1 serotype (avian flu strain). The World Health Organization (WHO) in Geneva has confirmed that the virus has never before been found in humans. Four experts from the CDC, who were appointed by WHO flew into Hong Kong to help with the investigation.
12-17 November 1997	<ul style="list-style-type: none"> Head of the WHO influenza programme confirmed that the boy who died of H5N1 caught it from infected chickens.
2-3 December 1997	<ul style="list-style-type: none"> WHO confirmed the second human case of H5N1.
6-7 December 1997	<ul style="list-style-type: none"> DHHK announced the discovery of two more cases of H5N1 influenza after initial laboratory findings. DHHK called an emergency meeting of the Special Investigation Group on H5N1 Influenza (SIG) with CDC experts.
8 December 1997	<ul style="list-style-type: none"> Four cases of H5N1 were confirmed. Investigations showed no evidence that the four cases were connected. Man-to-man transmission was not yet proven. Experts from CDC and WHO were working with a vaccine for H5N1.

Date	Event
9 December 1997	<ul style="list-style-type: none"> • The surveillance system for influenza was extended to all the general out-patient clinics under the DHHK. These clinics would undertake the surveillance functions including laboratory investigation of specimens taken from surveillance subjects.
11-12 December 1997	<ul style="list-style-type: none"> • Two hotlines were set up by the Hong Kong Medical Association and DHHK to provide expert advice. However, these hotlines were for doctors only, they were not available to the public. • Hong Kong Education Department urged schools to separate children from ducks, geese and chickens kept as educational pets, to prevent the spread of virus.
16 December 1997	<ul style="list-style-type: none"> • Six confirmed cases and three suspected case of H5N1 were reported. • Hong Kong health officials said that they could not rule out the possibility of a human-to-human transmission. • An Inter-departmental Co-ordinating Committee was set up to co-ordinate efforts of the various departments on the control of avian flu. • Measures taken by the HK government departments: <ol style="list-style-type: none"> 1. tightened control on import of chicken; 2. enhanced surveillance in both man and poultry; 3. improvements in environmental hygiene in markets.
19 December 1997	<ul style="list-style-type: none"> • Seven confirmed cases of H5N1 and two suspected cases.
22 December 1997	<ul style="list-style-type: none"> • Nine confirmed cases and two suspected cases.
24 December 1997	<ul style="list-style-type: none"> • Hong Kong banned chicken imports from mainland China.
25 December 1997	<ul style="list-style-type: none"> • Nine confirmed cases and six suspected cases. • Senior DHHK doctor said that screening all flu patients to check whether they were suffering the H5N1 strain would be a waste of resources.
26 December 1997	<ul style="list-style-type: none"> • 11 confirmed cases of H5N1 and 11 suspected cases.

Date	Event
27 December 1997	<ul style="list-style-type: none"> • Preliminary results of CDC Serology Test were released. The results left open the possibility of person-to-person transmission.
29-31 December 1997	<ul style="list-style-type: none"> • Roughly 1.4 million chickens from 1 000 markets and 160 farms in Hong Kong would be slaughtered in a new effort to stamp out the avian flu. • All poultry in retail markets, including geese and ducks kept near chicken, would be destroyed. About 1 000 government workers would be involved in the process.
30-31 December 1997	<ul style="list-style-type: none"> • 13 confirmed cases and six suspected cases of H5N1. • The Hong Kong Government would oversee the cleansing and disinfection of all poultry markets and farms.
1 January 1998	<ul style="list-style-type: none"> • An emergency plan was announced by the Hong Kong Government in the event of an epidemic. • Decision to advance the production of vaccine would be made by the end of January 1998.
2 January 1998	<ul style="list-style-type: none"> • More than 1.4 million chickens and other poultry had been slaughtered in a three-day operation in Hong Kong. However, television reports had shown birds still alive in the bags in which they should have been killed by carbon dioxide.
3 January 1998	<ul style="list-style-type: none"> • 16 confirmed cases of H5N1, four of which were fatal. Four cases remained under investigation. • Hong Kong Government admitted serious mistakes and the official behind the mass slaughter said she was prepared to resign after thousands of chickens escaped the cull and the carcasses of many others were not disposed of.
7 January 1998	<ul style="list-style-type: none"> • 16 confirmed cases. Two suspect cases remained under investigation.
9 January 1998	<ul style="list-style-type: none"> • 16 confirmed cases. One case remained under investigation.
10 January 1998	<ul style="list-style-type: none"> • 17 confirmed cases with one remaining under investigation.
14 January 1998	<ul style="list-style-type: none"> • 18 confirmed cases of which five were fatal. One suspected case remained under investigation.

Date	Event
15 January 1998	<ul style="list-style-type: none"> 18 confirmed cases of which six were fatal. One suspected case remained under investigation.
28 January 1998	<ul style="list-style-type: none"> WHO team found no human case of H5N1 virus infection in Guangdong province.
7 February 1998	<ul style="list-style-type: none"> The outbreak was 'over' and chicken import from mainland China was resumed. Poultry would be allowed from licensed mainland farms and quick blood tests would be made at the border to ensure they were free of the H5N1 virus.
28 February 1998	<ul style="list-style-type: none"> The importation of ducklings and goslings for farming purposes was resumed.
12 March 1998	<ul style="list-style-type: none"> The results of a case-control study were released. The case-control study was jointly carried out by the DHHK and CDC. The results supported earlier findings that human-to-human transmission of the disease was inefficient.
31 March 1998	<ul style="list-style-type: none"> The importation and trading of other live water birds was resumed.

Remarks:

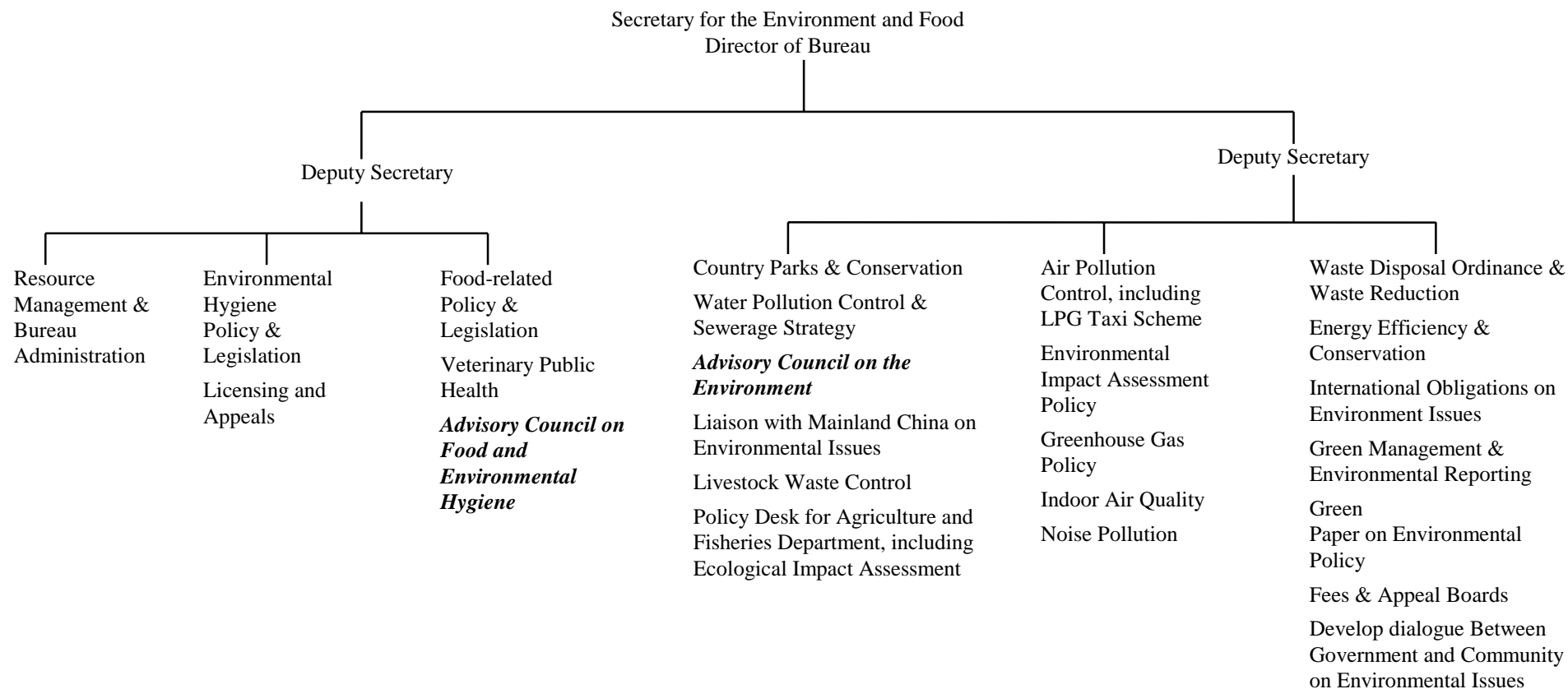
CDC - Centres for Disease Control and Prevention
DHHK - Hong Kong Department of Health
SIG - Special Investigation Group on H5N1 Influenza
WHO - World Health Organization

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Appendix XIII

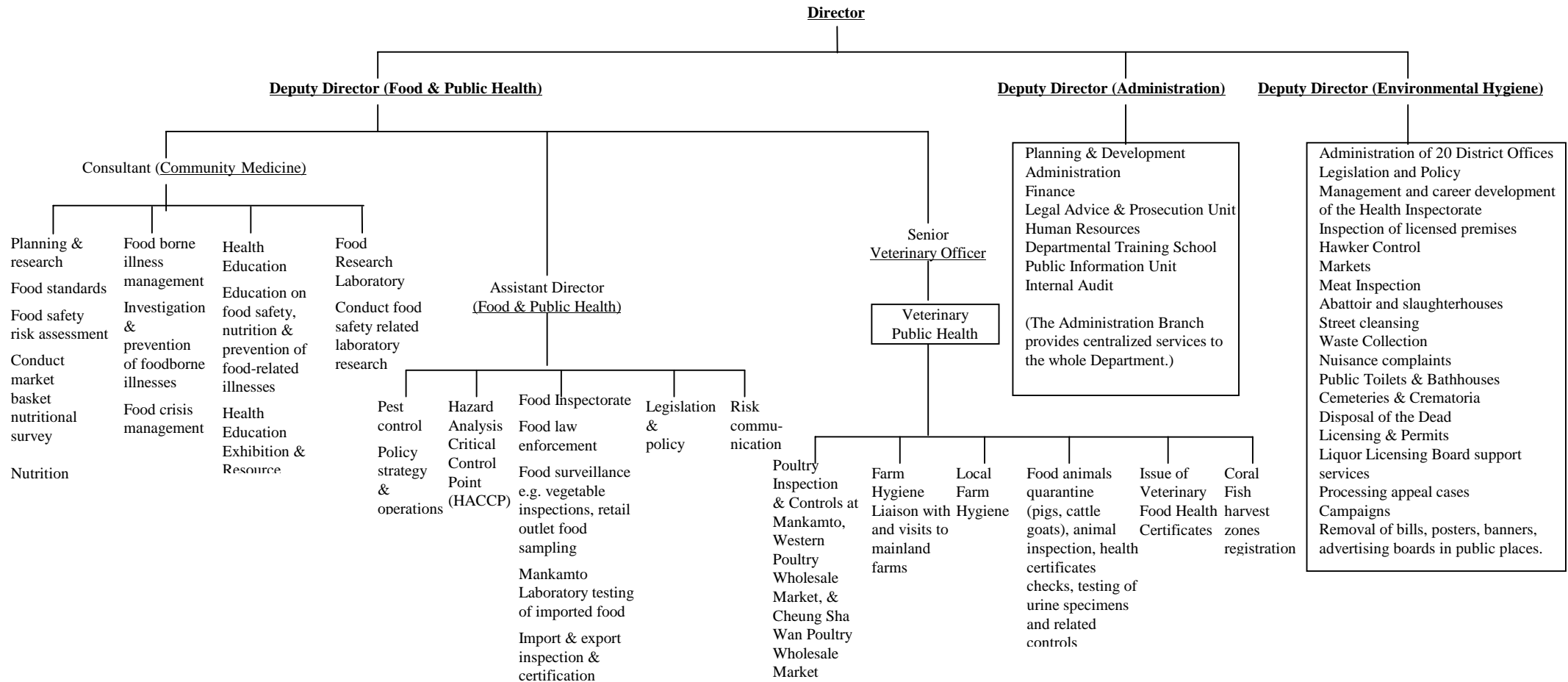
Proposed Organization Chart of The Environment and Food Bureau of Hong Kong



Source: Lam, The Consultant's Report on Food Safety and Environmental Hygiene Services in Hong Kong, November 1998.

Appendix XIV

Proposed Organization Chart of the Department of Food and Environmental Hygiene of Hong Kong



Source: The Consultant's Report on Food Safety and Environmental Hygiene Services in Hong Kong, November 1998.

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