Chapter 25

Canadian Food Inspection Agency

Food Inspection Programs

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Food Inspection Programs

Main Points

25.1   The Agency's food inspection programs are reviewed and generally well regarded by most foreign countries that import our products. This feedback provides a degree of assurance that the Agency's food inspection programs are contributing to the safety of the Canadian food supply.

25.2   Since its creation in April 1997, the Agency has undertaken a number of initiatives to improve the efficiency and effectiveness of federal food inspection — a major reason for its creation. These initiatives include the development of an Integrated Inspection System (IIS) to promote greater consistency between inspection programs; and the introduction of an approach based on the principles of hazard analysis and critical control points (HACCP). The HACCP-based approach is a tool to improve the safety of food through the assessment of hazards and the establishment of control systems that focus on prevention, rather than mainly the reliance on end-product testing.

25.3   While progress has been varied and in a few cases faltered, the Agency has made progress in many of the initiatives. We noted that the Agency has had difficulty in establishing a process to support risk-based resourcing. As a result, the Agency cannot demonstrate that it has appropriately resourced its food inspection programs based on risk. Such a process is needed particularly in the imported food sector, which is worth $15 billion and is growing, and the non-federally registered sector, which represents almost one-half of the food-processing industry. We also noted in the non-federally registered sector that the Agency has changed its inspection approach without adequately assessing overall risks and the options available for managing the sector. Also of concern is the lack of a formal strategy for the implementation of the HACCP-based approach and the setbacks encountered in the IIS.

25.4   We identified problems with the Agency's compliance activities. We examined 21 inspection files from establishments that had issued food recalls or had been prosecuted in the last two years. In 1999–2000, the Agency participated in 243 recalls and had 59 successful prosecutions. We found that in 16 cases, the same or similar problem persisted for many months and in some cases, years. The compliance actions taken were not sufficient to achieve the Agency's goal of timely correction of the compliance problem either because of the limitations in the legislation or a failure by the inspector to take more serious compliance action.

25.5   Measuring the success of initiatives and more broadly the performance of the Agency in achieving its goals is also a concern. We noted that the Agency had not set expectations or measured performance to determine if its initiatives and activities have contributed to a more efficient and effective food inspection system. Our annual assessment of the performance information in the Agency's annual report has consistently noted that readers are not provided with the information necessary to understand the extent to which the Agency is achieving its objectives.

Background and other observations

25.6   The Canadian Food Inspection Agency is the result of the amalgamation of food safety and inspection programs from three federal departments : Agriculture and Agri-Food Canada, Health Canada, and Fisheries and Oceans. It now has some 4,400 employees across the country and manages expenditures of $416 million. The Agency's main activities focus on inspecting the food supply, but it also conducts activities related to animal health and plant protection.

25.7   The Agency is not solely responsible for food safety. It shares this responsibility with other federal departments and provincial, territorial and municipal authorities. Industry and consumers also play an important role. Health Canada is responsible for establishing policies and standards relating to the safety and nutritional quality of food. The Agency is responsible for delivering federal inspection programs that enforce these policies and standards.

25.8   The Agency operates in a complex environment created by a number of factors, including changes in food risks, technology, inspection methodology, international requirements, consumer trends and consumer perception.

25.9   Our audit focussed on assessing how the Agency manages food inspection to reduce risks to food safety.

25.10   We found that a formal strategy for the implementation of the HACCP-based approach is needed. A plan for the transition period, including considering how to manage resources during the transition period needs to be developed. Further, insufficient information has been collected to allow the Agency to measure the success of implementing the HACCP-based approach in improving food safety. It could take many years to develop and implement the further redesign of the HACCP-based approach in the meat industry. This redesign would require industry to perform ante- and post-mortem detection with continuous government monitoring and oversight in the beef and pork industries. It could also take a long time to introduce a pathogen-reduction effort in these industries. This situation is in contrast with the important progress made in the poultry industry.

25.11   The Agency is lacking important information on the incidence of food-borne illness in humans and the prevalence of pathogens in the food supply. This is complicated by the fact that the Agency is not responsible for gathering some of the information. However, without this information, it is more difficult to manage risks to food safety and measure the success of Agency initiatives and its contribution to the safety of the food supply.

25.12   The Agency has consulted the provinces, industry and the public on some, but not all, significant initiatives and issues. As a result, the Agency has missed opportunities for broad public debate on important questions, including the following: How much inspection attention should be paid to the non-federally registered sector given its mandate? Should the Agency continue to provide industry with considerable flexibility in implementing the HACCP-based approach? Should it be leading internationally in implementing the further redesign of the HACCP-based approach in the meat industry? It is important that the Agency engage stakeholders, including Parliamentarians and the public, in a debate on these questions.

The Canadian Food Inspection Agency's responses to our recommendations are included in the chapter. The Agency accepts all but one of our recommendations and has indicated a number of actions it is taking or intends to take to address them. The Agency disagrees with our recommendation relating to the non-federally registered sector. Its position is reflected in its response following paragraph 25.82.

Introduction

25.13 Responsibility for safe food lies with all those involved in food, from production through to consumption:

- farmers must produce safe food, and fishers must catch and handle fish safely;

- food processors, wholesalers and distributors must comply with established standards;

- all levels of government must verify compliance with these standards; and

- consumers must handle food properly.

History of the Canadian Food Inspection Agency

25.14 The Canadian Food Inspection Agency (CFIA) was created in 1997 by combining the food safety and inspection programs of three federal departments: Agriculture and Agri-Food Canada, Health Canada, and Fisheries and Oceans. This move was an attempt to facilitate a more uniform and consistent approach to safety and quality standards and risk-based inspection.

25.15 The Agency's creation resulted from a long history of identifying reasons to reform the food inspection system. Between 1970 and 1985 four key reports mentioned the need for a single agency to provide better co-ordinated food inspection. In 1986 the Interdepartmental Committee on Food Regulation (ICFR) was established in response to the 1985 report of the Task Force on Program Review (Nielson Report). In our 1994 Report, Chapter 13, Federal Management of the Food Safety System, we concluded that long-standing problems with the food inspection system still existed and that the mandate of the ICFR remained unfulfilled. The 1995 federal Budget highlighted the need to improve the effectiveness and efficiency of the federal component of the Canadian food inspection system,

including possible changes to the organizational structure. The Office of Food Inspection Systems (OFIS) was established in May 1995 to review organizational options and consult stakeholders. The Canadian Food Inspection Agency began operation on 1 April 1997.

Shared responsibility for food safety

25.16 At the federal level, responsibility for food safety is shared between the Minister of Agriculture and Agri-Food, through the Agency, and the Minister of Health, through Health Canada. The Agency's primary role in food safety is to conduct all federal food inspection activities. It also has other responsibilities for animal health and plant protection.

25.17 The Minister of Health establishes policies and standards for the safety and nutritional quality of food sold in Canada. These policies and standards are based in part on the risk assessments, food safety research and disease surveillance by Health Canada. The Department also assesses the effectiveness of the Agency's food inspection activities.

25.18 The Agency regulates the food industry through two types of food safety legislation. All food produced in Canada or imported is covered by the *Food and Drugs Act*, which derives its authority from powers of federal criminal law. This Act prohibits the manufacture or sale of all dangerous and adulterated food products anywhere in Canada. There are a number of commodities (dairy, shell and processed egg, fresh and processed fruits and vegetables, honey, maple syrup, beef, pork, poultry and fish) that are also covered by other Acts. These Acts derive their authority from powers of federal trade and commerce. Canadian establishments that process and distribute these commodities inter-provincially/terri-torially or internationally must register with the Agency in order to operate. As such, the establishments that trade in these

The Canadian Food Inspection Agency's mandate is "to enhance the effectiveness and efficiency of federal inspection and related services for food and animal and plant health."

commodities are referred to as "federally registered establishments." In addition to product inspection, importers or foreign processing establishments of these commodities may be subject to enhanced import controls, such as foreign country assessment, inspection of foreign establishments, audit of importer quality systems and importer licensing. All other food establishments are referred to as "non-federally registered establishments." Exhibit 25.1 presents the relationship between the two groups of food commodities and the two types of federal food safety legislation. The Agency is also responsible for the administration and enforcement of the *Consumer Packaging and Labelling Act,* which applies to selected food products that are sold or advertised for sale in Canada or imported into the country.

25.19 The Agency's mandate is "to enhance the effectiveness and efficiency

of federal inspection and related services for food and animal and plant health." Its mission is "safe food, market access and consumer protection." The objectives stated in the corporate business plan are to contribute to a safe food supply and accurate product information; to contribute to the continuing health of animals and plants for protection of the resource base; and to facilitate trade in food, animals, plants and their products.

25.20 Food safety also involves provincial, territorial and municipal authorities. Under their public health and trade mandates, the provinces' and territories' jurisdiction extends to all food manufactured, traded and sold within their borders. The provincial governments not only regulate retail and food services, such as restaurants, but may also regulate requirements for all food premises, including federally registered establishments. For example, most

Exhibit 25.1

Food Commodities and Their Applicable Federal Legislation for Food Safety

	Dairy, shell and processed egg, fresh and processed fruits and vegetables, honey, maple syrup, beef, pork, poultry, fish			All other foods	
Percentage of grocery dollars spent by consumers on these commodities	56%			44%	
	Domestically produced: traded inter-provincially/ territorially or internationally	Imported	Domestically produced: sold within a province or territory	Domestically produced: traded inter-provincially/ territorially, internationally or sold within a province or territory	Imported
	Federal registration required or enhanced import controls		**Federal registration NOT required**		
Applicable criminal legislation: i.e., *Food and Drugs Act*	✔	✔	✔	✔	✔
Applicable trade and commerce legislation: i.e., *Canada Agricultural Products Act, Meat Inspection Act, Fish Inspection Act*	✔	✔	N/A	N/A	N/A

Source: CFIA's documents and other sources

provinces regulate the construction and basic sanitary requirements of certain establishments within their borders. In some provinces, municipal governments also enforce regulations.

25.21 Because of this shared responsibility, mechanisms are needed to ensure effective and well-coordinated partnerships with a clear understanding of responsibilities and activities. To do so, the Agency and its partners participate in a number of co-operative committees. For example, the Agency is a member of the Canadian Food Inspection System Implementation Group. The Group is an interdepartmental/inter governmental committee established to advance a fully integrated inspection system. The Agency is also involved in the work of the Federal/Provincial/Territorial Agri-Food Inspection Committee, which discusses science issues, concerns about technical trade barriers, and agri-food inspection policies and programs. Exhibit 25.2 summarizes other valuable work by the Agency to help improve the co-ordination of food inspection activities across Canada.

Food inspection programs

25.22 Food inspection programs verify, through inspection or audit, that food products for domestic and foreign consumption meet Canadian or foreign standards for safety, quality, handling, identity, processing and labelling. This function is primarily carried out in two ways: through the registration and inspection of establishments for inter-provincial and international trade; and through the inspection and grade monitoring of products in registered and non-registered processing establishments, at importers' premises and in retail establishments. The inspection of quantity, quality and labelling protects consumers from economic fraud. Industry compliance inspection involves a visit to an establishment and, following detailed inspection policies and procedures,

verification that an establishment is operating in accordance with government regulations. The evolution of new inspection methodologies is changing the approach to inspection. There is an increased focus on government audit of industry activities with the support of compliance and enforcement tools. The Agency also participates in emergency food recalls and investigates food-borne illnesses. These activities help to ensure that Canadian food exports can access international markets.

25.23 For 1999–2000, the Agency reported that its total annual costs were $416 million, $54 million of which was recovered through user fees. Of this total amount, $279 million were for food safety and $137 million were for animal health and plant protection. It now has some 4,400 employees across Canada.

The external environment

25.24 Many factors affect the safety of the food we eat. These factors influence the means that the Agency and industry use to help ensure the wholesomeness and safety of food. They also create challenges for the Agency in carrying out its mandate.

25.25 One factor over the last many years has been the changing hazards in our food. When the *Meat Inspection Act* was passed in 1907, diseases that could be transmitted from animals to humans were of primary concern. In the 1980s chemical

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The Agency, as part of the Canadian Food Inspection System Implementation Group, is participating in the development of harmonized model regulations and codes for a number of industries. These regulations and codes provide a set of standards that serve as guides for each jurisdiction, federal, provincial and territorial, in developing their own laws and codes of practice. Codes and regulations for the dairy industry and retail and food service industry have been approved and regulations and codes for the meat and poultry, horticulture and bottled water industries are being developed.

Exhibit 25.2

Contributing to a National Food Inspection System

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contamination was the main concern. Measures were taken to control it, and residue testing became a routine part of food inspection. The significant hazard that emerged in the 1990s was microbial contamination, which can cause immediate and acute illness. Controlling such contamination can be done with such means as clean water, public sanitation, disease surveillance and food control. Other new hazards which have raised concern in recent years include antibiotic-resistant bacteria, food allergens and diseases such as bovine spongiform encephalopathy (BSE or "mad cow disease").

25.26   To deal with new hazards, new technology and control measures must be developed. At the same time, new inspection methods must be developed. The adoption of food-processing systems based on the principles of hazard analysis and critical control points (HACCP) has resulted in changes to the inspection methodology of food processors that have implemented this system.

25.27   Another factor that has affected food safety over the years has been the change in international trade requirements, which influence the activities of industry and the Agency. As a member of the World Trade Organization, Canada has an obligation to harmonize its food safety measures with international standards, guidelines and recommendations adopted by the Codex Alimentarius Commission, a joint commission of the United Nation's Food and Agriculture Organization and World Health Organization. The Commission is generally recognized as the authority on international food safety standards. Additional international obligations exist under the Agreement on the Application of Sanitary and Phytosanitary Measures and Technical Barriers to Trade. As well, Canada has entered into a number of equivalency agreements with other countries. These agreements recognize that Canada's food inspection system

meets the required level of protection of our trading partners and that their system meets Canada's level.

25.28   Finally, changes in consumer trends and consumer perception have influenced the Agency's activities. Today Canadians are consuming a greater variety of foods. There has been substantial growth in domestic food processing, food exports, and food imports. Eating patterns are changing, with more food dollars being spent on foods prepared outside the home, either in restaurants or processing facilities. Consumers are more aware of the hazards that exist in food and have certain expectations of government and industry to protect them from these hazards.

The internal environment

25.29   When it was created, the Agency inherited 12 pieces of legislation, 46 sets of regulations, some 4,500 full–time equivalents and 27 bargaining units as well as different methodologies, styles and corporate cultures.

25.30   Creating the Agency was seen as a means to give it greater autonomy in providing more responsive and more cost-effective services. The government expected that the Agency would reduce, avoid and recover costs. It cut the Agency's budget by $33 million over the first three years, which has had an impact on the way the Agency has carried out its inspection activities.

Focus of the audit

25.31   We undertook this audit to do the following:

- to assess whether the inspection regimes have been satisfactorily designed, structured, organized and implemented to achieve their safety and other objectives;

- to identify factors and constraints that affect the development or implementation of the inspection regimes; and

- to determine whether the Agency is proceeding adequately with initiatives to improve its management of risks to food safety relative to its mandate for food inspection.

25.32 To assess how the Agency manages risk, we examined a number of its strategic initiatives to manage risks. We focussed on the initiatives that we felt were the most significant:

- the Integrated Inspection System

- risk-based resourcing

- imported commodities

- non-federally registered establishments

- the implementation of the HACCP-based approach

- compliance and enforcement activities

- human resource management.

In addition, we also assessed the following factors, which can influence the success of these initiatives:

- information for management decisions and performance measurement

- risk communication framework

- corporate capacity.

25.33 Further information on our audit scope, criteria and approach can be found at the end of the chapter in the section **About the Audit**.

Observations and Recommendations

The Agency's Initiatives to Achieve Its Mandate

25.34 After the creation of the Agency in 1997, the Minister of Agriculture and Agri-Food presented to Parliament the Agency's first corporate business plan

for 1997–2000. The plan identified a number of strategic initiatives that the Agency intended to undertake to achieve its mandate of enhancing the effectiveness and efficiency of federal inspection and related services for food. The Agency has carried out other initiatives, not mentioned in its business plan, to achieve its mandate. In doing so, the Agency has created expectations for improvements.

25.35 It was intended that the Agency would evolve in three phases. The first phase would involve the amalgamation of the food safety and inspection programs of Agriculture and Agri-Food Canada, Health Canada, and Fisheries and Oceans. This phase is complete. The second phase would see the modernization of food safety legislation. The Agency drafted the *Canada Food Safety and Inspection Act* to do so (see Exhibit 25.3), and work is ongoing to revise the proposed Act. The third phase would involve program and regulatory redesign. The Agency has significantly redesigned some programs, but further redesign remains outstanding because it depends on a change in legislation.

25.36 The Agency has made good progress in some areas. For example, it has done the following:

- achieved its targets for resource savings;

- progressed on the federal/provincial negotiations under the Canadian Food

The Agency and Health Canada established the Task Force on Legislation. The task force reviewed the Agency's legislation and developed a strategy and action plan for modernizing and consolidating the legislation. The result of extensive consultation and this review was the first reading in the House of Commons of Bill C–80, the *Canada Food Safety and Inspection Act*. The Bill proposed an Act designed to establish a more consistent approach to licensing, import controls, offences, enforcement powers and penalties. At the time of our audit, work was ongoing to revise the first reading of the Bill.

> The Agency's corporate business plan identified a number of strategic initiatives that the Agency intended to undertake to achieve its mandate.

Exhibit 25.3

Development of the *Canada Food Safety and Inspection Act*

Source: CFIA's Performance Report, for the period ending 31 March 1999

Inspection System Implementation Group (see Exhibit 25.2);

• drafted federal legislation in the form of the *Canada Food Safety and Inspection Act* (see Exhibit 25.3);

• created the Office of Food Safety Recall to address some of the problems that the Agency had experienced when participating in food recalls;

• improved its procedures on enforcement action, that is, in situations when legal action is taken (Exhibit 25.4);

• consolidated its laboratory services (see Exhibit 25.5); and

• continued to deliver food inspection programs that are well regarded by foreign countries and to manage some

1,500 international agreements and protocols dealing with market access and export certification arrangements.

25.37 Here is a brief introduction of these initiatives, which we discuss in detail later in the chapter:

• **Integrated Inspection System (IIS).** The Agency's business plan and the Canadian Food Inspection System Implementation Group identified the IIS as key to bringing consistency to the many different approaches to food inspection that existed before the creation of the Agency. This initiative affects all food inspection programs.

• **Risk-based resourcing.** Identifying and assessing risks to food safety and economic risks and allocating resources based on the relative risks have been goals of the Agency and its predecessors for many years. This initiative would allow the Agency to demonstrate that it has appropriately resourced its food inspection programs based on the relative risks. This initiative affects all food inspection programs.

• **Imported commodities.** The value of food imports has increased over 60 percent between 1992 and 1998. This growing sector requires a different management approach than the sector that produces food domestically. Developing a consistent approach would help to ensure that the management of imported commodities is appropriate based on risks.

• **Food inspection programs for establishments in the non-federally registered sector.** The sector represents almost half of the food-processing industry in Canada. These establishments are generally subject to a much less rigorous federal inspection regime than food processors in the federally registered sector. Assessing the overall risks to food safety in the non-federally registered sector is important for determining the appropriate level of effort based on risks.

• **Implementation of the HACCP-based approach in the**

Exhibit 25.4

Improvement of the Agency's Enforcement Actions

We found that the Agency has taken important steps to improve the quality and consistency of its enforcement (i.e., legal) actions. The Agency is providing enforcement training to all inspection staff. The training includes guidance on factors to consider when recommending prosecution, involving local enforcement and investigation services, and using a standardized inspection form that captures all the required information when prosecution is likely. While the Agency still depends on inspectors and supervisors to recommend prosecution, recent training programs appear to be well designed to help ensure consistency in their decisions.

Source: CFIA's documents and other sources

Exhibit 25.5

The Agency's Consolidation of Its Laboratories

In 1999–2000 the Agency consolidated all 22 of its laboratories into a single reporting structure. The laboratories are grouped into four areas (Atlantic, Quebec, Ontario and West), with each area reporting to a senior area laboratory network director.

One of the Agency's goals is to have its laboratories accredited to international standards. All of the laboratories have either achieved accreditation by the Standards Council of Canada to ISO/IEC Guide 25 (General Requirements for the Competence of Calibration and Testing Laboratories), submitted an application for accreditation, or are preparing to do so.

Source: CFIA's Annual Report, 1999–2000

federally registered sector. This initiative has significantly changed the processing and inspection methodology. Many of Canada's trading partners are also implementing this approach. HACCP-based systems are generally accepted worldwide as a means to improve the safety of food. HACCP-based inspection programs are expected to allow for better allocation of inspection resources to those areas that present the greatest risk.

• **Improvement of compliance and enforcement actions.** The Agency uses these actions to secure correction of non-compliance problems identified at establishments during inspection. This initiative affects all food inspection programs and helps to ensure appropriate and consistent action.

• **Human resource management.** The Agency has freedoms in managing its human resources, which are not usually available to departments. An understanding of what the Agency needs in a future work force could help it in preparing to deliver its mandate into the future.

25.38 We have identified three factors that we believe influence the success of these initiatives:

• **Information** is important to making management decisions and measuring performance. It can assist in understanding risks, designing food inspection programs to manage these risks and measuring the success of these programs.

• A **risk communication framework** helps an organization to operate transparently and responsibly, which is key to engaging stakeholders in important management decisions. Communication with stakeholders through the corporate business plan, the annual report and consultation provides a means for considering stakeholder concerns and expectations in management decisions.

• **Corporate capacity** is important to the orderly operation of an organization. While corporate capacity is always evolving, there are basic elements that must be in place to assist in orderly operation.

25.39 We expected that the Agency would proceed adequately on implementing these important strategic initiatives and would identify how they have contributed to the effective and efficient delivery of food inspection activities. We found that progress on implementation has been varied.

Integrated Inspection System

The system has encountered setbacks

25.40 The Agency made a commitment to an Integrated Inspection System to improve the efficiency and effectiveness of food inspection activities by integrating them into two dimensions. First, it would integrate inspection activities across all food inspection programs to have a more uniform approach, that is, to treat similar risks to food safety in a similar manner regardless of which food inspection program they relate to (see Exhibit 25.6). Second, it would develop an integrated

The case of the fish processor that wanted to produce bacon-wrapped scallops highlights the problem of having food regulations with different standards for different commodities. In this case, requirements for meat are different and generally more stringent than for fish:

• non-impervious walls are required in a meat-processing establishment, but are not required under fish-processing regulations;

• painted plywood is not allowed under the meat-processing regulations, but it is acceptable under fish-processing regulations;

• bacon must be processed in a refrigerated environment that is not higher than 10°C, a requirement that does not exist under fish-processing regulations.

IIS principles incorporating uniformity of both inspection and safety standards across commodities will provide solutions for similar cases.

Exhibit 25.6

Bacon-Wrapped Scallops — Integrating Programs Across Commodities

Source: Internal memorandum of the CFIA

"production to consumption" approach to food safety with producers, processors, provinces and consumers. This project has received support from industry, which generally considers the IIS as a positive initiative.

We found that the Agency has experienced some difficulty in advancing the initiative of the Integrated Inspection System.

25.41 We expected that the Agency would proceed with the implementation of the IIS. We found that it has experienced some difficulty in advancing this initiative, although the Agency has recently taken action to make progress.

25.42 In the first phase of the project, completed in the fall of 1998, the Agency established a model and reference standard for an IIS and produced a report that benchmarked existing Agency food inspection programs. In the second phase, it needed to further develop the IIS model by conducting pilot projects and consulting its staff, industry and the provinces. In the two years since the completion of the first phase, the project has encountered a number of setbacks, including changes in staff and problems communicating IIS-related concepts internally. As a result of these and other problems, the Agency has reconsidered the scope and direction of the project. We understand that the Agency will now focus on some smaller scale projects, such as integrating its various import programs and supporting the Canadian Food Safety Adaptation Program to develop strategies and systems that manage food safety from production to consumption.

25.43 The Agency's business plan identifies the IIS as a key initiative. In fact, the Canadian Food Inspection System Implementation Group recommended it in its Report to Ministers. As such, it is important that the Agency continue to focus on its goals of greater integration.

25.44 The Canadian Food Inspection Agency should revitalize and complete the development of the Integrated Inspection System.

Agency's response: The CFIA agrees with this recommendation and has taken action to further enhance the efficiency and effectiveness of its food inspection system within legislative boundaries.

The initiative has refocussed on integration of inspection approaches in the area of import control systems and consistency of audit and verification protocols related to science-based inspection procedures.

Risk-Based Resourcing

25.45 The Agency considers risks to food safety to be a critical element in risk management decisions. Risk to food safety is determined by the probability that a hazard to food safety will have an adverse effect and by the magnitude of that effect. Hazards to food safety include microbial pathogens (like salmonella), chemical residues (such as pesticides) or foreign materials (like glass). But there are other risks that influence risk management decisions at the Agency. For instance, economic risk comes from a number of sources including international requirements, which if not met, could mean the loss of a market. For example, in various programs, the Agency must provide inspection activities for trade in addition to inspection activities for food safety, in order to meet the import trade requirements of other countries.

25.46 Factors that influence risk management decisions include the public's perception of hazards to food and its expectations of what government will do to protect them from these hazards. This situation is especially difficult when public perception differs from the scientific evidence or the scientific evidence is limited. Technical feasibility, economic cost and preferences of society must also be taken into consideration.

25.47 The concept of risk and relative risk is a difficult and complex subject, and risk analysis is still evolving in Canada and at the international level. To be

credible, risk analysis must be supported by a rigorous and systematic scientific approach.

25.48 Designing and resourcing food inspection programs based on the relative risks to food safety and the relative economic risk has been a goal of the Agency and its predecessors for many years. It requires that risks be identified and assessed based on relative risks, which means that risks across programs that are of equal severity receive a similar degree of attention and reflect an appropriate level of protection. Based on this analysis, the existing program design can be assessed to ensure that the program appropriately deals with the risks, and the appropriate level of resources needed to deliver the program can be determined. If excess resources are identified in certain programs, the Agency could reallocate them to programs that are under-resourced. If there is a shortage, the Agency would need to devise a plan for obtaining appropriate resources for its programs. This analysis makes it possible to demonstrate whether the level of effort in managing risks is appropriate, whether the level of resources is appropriate and whether all risks are being managed, as required.

25.49 We expected that the Agency would be able to demonstrate that it has appropriately resourced its programs based on risks, especially the risk to food safety and the economic risk. We found that it could demonstrate in some programs that existing resources had been allocated within the program based on risks. However, it has been difficult for the Agency to devise a process that supports risk-based resourcing across programs. As a result, the Agency cannot demonstrate that it has appropriately resourced its food inspection programs based on risks.

Attempts at risk-based resourcing across programs have been unsuccessful

25.50 In our 1988 Report, Chapter 8, Agriculture Canada — Food Production and Inspection Branch, we recommended that food inspection resources be aligned on the basis of risk. We repeated this message in our 1994 Report, Chapter 13, Federal Management of the Food Safety System. Over the years, there has been some progress, particularly in allocating resources within certain food inspection programs. Identification and assessment of hazards in specific commodities, such as E.coli O157:H7 in unpasteurized juice, has also improved.

25.51 The Agency has made various attempts to establish a process that supports risk-based resourcing across all food inspection programs. The Agency-Wide Risk-Based Resourcing Project was one such attempt (see Exhibit 25.7). However, differences between food inspection programs, limited information and few common bases for comparing risks has made this a difficult task for the Agency. Applying this

The Agency cannot demonstrate that it has appropriately resourced its food inspection programs based on risks.

Exhibit 25.7

Agency-Wide Risk-Based Resourcing Project

One of the more ambitious attempts to improve priority setting was the Agency-Wide Risk-Based Resourcing Project. The Agency's senior management acknowledged the following:

The project to target resources to areas of highest risk within the Agency is supported by program Directors as one of the most important new initiatives of the CFIA. When completed, it is anticipated that there will be greater consistency and a more level playing field across programs. The project will also provide an opportunity for stakeholder participation and hence a transparent and public accountability that is appropriate in determining what the public considers acceptable risk. This will also meet our commitment to the OAG and our responsibility to Parliament and the Canadian people.

Within months of this statement, the project had ended because of competing demands and a lack of resources.

Source: Internal memorandum of the CFIA

exercise to its programs for food inspection, animal health and plant protection complicated the situation. Further, the Agency has not been able to find an appropriate model used by another food inspection entity that would serve as an example for the Agency.

Programs may not be appropriately resourced based on risks

25.52 We did not complete a resource review to determine if the Agency's food inspection programs were excessively or insufficiently resourced based on relative risks. However, we did note situations that raise questions about whether resources are appropriate based on relative risks.

25.53 One area concerns the inspection of imported commodities. Several of the Agency's internal reviews have identified the need for a more consistent, risk-based allocation of resources across these commodities. To illustrate, the Agency allocates 20 direct inspection staff positions to each of the meat import program and the import program for non-federally registered commodities that are covered by the *Food and Drugs Act*, even though the risks to food safety in both programs are not equal. Using risk categories devised by Health Canada before the creation of the Agency, raw meat imports are deemed low risk, while commodities covered by the *Food and Drugs Act* vary in risk from high to low. Because imported meat is regulated under trade and commerce legislation, it tends to be inspected at relatively few locations. Imported commodities regulated under the *Food and Drugs Act* generally cannot be inspected at entry, requiring inspectors to visit the importer's premises, of which the Agency estimates there are 3,450. Agency officials informed us that the meat import program is designed to manage trade concerns as well as food safety concerns, while the import program for commodities covered by the *Food and Drugs Act* is designed to manage only food safety concerns. However, the Agency has not

conducted an analysis to demonstrate the adequacy of resourcing for imported commodities covered by the *Food and Drugs Act.* The need for risk-based resourcing is also demonstrated in the discussion on the non-federally registered sector, presented later in this chapter.

25.54 As well, in our review of the Agency's work planning process, we noted that planned levels of activity are negotiated based on the levels of effort required in the program design and the amount of available resources. We found that because of limited resources, the planned levels of activity were generally less than the levels required to deliver the program as designed. We also found that actual levels of activity performed were lower than those that were planned. This suggests that either the required levels of effort are excessive or the levels of effort actually delivered are inadequate.

The Agency took action to manage resource variances

25.55 Aware of this situation, the Agency conducted an analysis of the variance in its resources, estimating it to be short 500 staff positions across all of the Agency's inspection programs. The Agency informed us that subsequent analysis suggests that the figure of 500 is inflated. The Agency used the analysis to support a request for additional funding from Treasury Board, which it believes will partially address the gaps in program delivery. It has also reduced the required level of effort in some food inspection programs to match the available resources. While these measures have addressed the gaps, we noted that they were not based on a systematic assessment of risks. The Agency has recently begun another, more comprehensive resource review to support a further request for funding from Treasury Board.

25.56 In our view, despite the difficulties in establishing a process to support risk-based resourcing, it is important that the Agency revitalize its

efforts to do so. This exercise would allow the Agency to demonstrate to Parliament that it has appropriately determined the resources it needs and the extent to which its programs are appropriately resourced based on relative risks. Such an exercise is also seen as an important means for the Agency to demonstrate that it has shown due diligence in carrying out its legislative commitments.

Guidance is needed to assist operational decisions

25.57 Staff makes operational decisions on how to manage resources among food inspection programs. We found three different approaches in the Agency:

• reliance on staff experience and knowledge of the industry and establishments and the legislative requirements to make operational decisions on program delivery;

• internal negotiation, such as the annual work planning process in which there is a negotiation of competing commitments and resource allocation;

• a priority analysis framework, such as that used by the scientific risk assessment unit to prioritize competing demands for risk assessments.

25.58 Agency staff told us that further guidance would be helpful when it is deciding how to allocate resources between competing program demands. For example, it would need guidance to determine whether a traditional inspection of a fish importer is of higher priority than a HACCP inspection of a fish processor. This guidance could be a priority listing or a series of criteria that outline what staff should consider in choosing among competing program demands.

25.59 The Canadian Food Inspection Agency should assess and report the extent to which its food inspection programs are appropriately resourced based on relative risks. Further, the Agency should develop guidelines to assist staff in making operational decisions on competing program demands.

Agency's response: All the food inspection programs within the CFIA are designed and delivered on a risk-based framework. Risk considerations, with the highest consideration given to food safety risk, underlie all resourcing decisions within each of these programs.

The CFIA's inspection programs are based on requirements and obligations set out in legislation, regulations, and/or government-to-government agreements. The CFIA, operating within its legislative and regulatory mandate, assigns resources and priorities based on risk within each of its food inspection programs.

However, the concept of relative risks, or the ability to compare different risks across programs, is still evolving at the international level. Although, the CFIA is at the forefront in international discussions on the application of relative risks, there are currently no models in existence which could be adopted by the CFIA. Therefore, to assess whether programs are appropriately resourced, based on relative risk, is extremely difficult and may not be possible for some time.

The CFIA is undertaking a comprehensive resource review in conjunction with the Treasury Board Secretariat. The goal of the review is to ensure that the CFIA's activities, including its food inspection programs, are appropriately resourced. The resource review, which is expected to be completed in April 2001, will assess all CFIA activities and resources and develop a projection of the resource requirements for the next three to five years.

An effective workplanning and quarterly reporting process involving both the program design and delivery staff of the CFIA will provide guidance on operational decisions and enhance reporting.

Management of Imported Commodities

25.60   Canadians are eating more imported food in greater varieties than ever before. In 1998 Canada imported over $15 billion of food, compared with approximately $9 billion in 1992. In particular, more ethnic foods and more varied fruits and vegetables have crossed our borders.

25.61   Managing safety is different for imported commodities than for commodities produced domestically. The federal regulatory authority has less control of food produced outside Canada. Further, managing imported commodities involves dealing with foreign jurisdictions as well as other federal organizations, such as the Canada Customs and Revenue Agency and the Department of Foreign Affairs and International Trade.

Limitations in legislation make it difficult to manage imported commodities.

25.62   We expected that the Agency would develop an overall strategic approach for imported commodities that would allow it to consistently manage the risks to food safety of imported commodities. We found that while the Agency has undertaken several important projects, it does not yet have a strategic approach for managing the sector. In addition, we found that limitations in the current legislation make it difficult for the Agency to manage certain imported commodities.

The Agency needs a strategic approach to manage imported commodities

25.63   Two internal reports have raised concerns about the absence of a strategic approach for imported commodities. Because each imported commodity is included as part of the domestic food inspection program for that commodity, there are inconsistencies in the approach to different imported commodities. The Agency has recently started planning a project on imported commodities as part of the initiative of the Integrated

Inspection System. A strategic approach could eliminate some of these inconsistencies.

25.64   Although there is no strategic approach, the Agency has developed a number of tools to manage imported commodities. The Import Services Team develops import control systems and works closely with the Canada Customs and Revenue Agency to co-ordinate import activities. The Agency surveyed importers to better understand the import sector. There are a number of management information systems that allow the Agency to identify, inspect and track imported commodities. The creation of the Import Service Centres, which operate seven days a week and 20 hours a day, streamlined the import process.

Current legislation is limiting

25.65   Imported commodities that are covered under trade and commerce legislation, such as meat or fish, can be stopped at points of entry and inspected. Imported commodities covered by the *Food and Drugs Act* cannot. They are declared at the point of entry, but may only be inspected on the importer's premises, unless they are subject to an import alert or other special control measures. These limitations in the legislation make it difficult to manage imported commodities.

25.66   Agency officials explained that data and information on importers and the products they import collected by the Canada Customs and Revenue Agency, under the *Customs Act,* is not readily accessible to the Agency. For example, the Agency cannot access information about an importer's importing history.

25.67   To deal with these limitations, Bill C–80, the *Canada Food Safety and Inspection Act,* was tabled in the House of Commons. The Bill was proposed for passage by Parliament to allow the following:

- licensing of all food importers;

- inspection of all food products at points of entry;

- designation of specific points of entry for certain commodities;

- enhancement of inspectors' powers; and

- implementation of electronic commerce.

25.68   For imported commodities, the Canadian Food Inspection Agency should develop an overall strategic approach to enhance consistency. Further, the federal government should address limitations in existing legislation.

Agency's response: The CFIA agrees with this recommendation and has taken action. The CFIA is developing an overall strategic approach to enhance and guide the integration of various import control systems and improve the effectiveness and efficiency of control, monitoring, and enforcement actions.

In the spring of 1999, the Government of Canada introduced Bill C-80, the Canada Food Safety and Inspection Act. *This bill addresses the limitations in the existing legislation, which were identified by the audit.*

Non-Federally Registered Sector

25.69   The Agency has estimated that the non-federally registered sector includes roughly 5,000 food-processing establishments, which represent about half of the food-processing industry in Canada. This estimate grows to about 100,000 with the inclusion of retailers and restaurants. At the federal level, the main legislative base for managing risks to food safety in this sector is the *Food and Drugs Act*. The Agency is responsible for enforcing all food inspection related sections of the Act, in particular the prohibition against selling unsafe food, unwholesome food, or food that is "manufactured, prepared,

preserved, packaged or stored under unsanitary conditions".

25.70   Management of this sector is a challenge due to its size and the variety of commodities it produces (for example, infant formula and cereal, baked goods, beer, soft drinks and candy). Because registration is not provided for under the Act, the Agency cannot be certain that it is aware of all operating establishments and the potential risks. Further, because provinces share responsibility for this sector, the Agency is required to work in partnership with the provinces, each of which has different legislation and funding.

25.71   Risk to the safety of a food commodity does not influence whether establishments that trade inter-provincially/territorially or internationally are federally registered or not. Rather, it is trade and commerce requirements that influence registration. For example, peanut butter, which is not federally registered, was categorized as a high risk (category 1) by Health Canada when the Department was responsible for this sector (i.e., before the creation of the Agency). In contrast, ketchup, which Health Canada considered a low risk (category 3), is federally registered (see Exhibit 25.8). Establishments trading in commodities that are non-federally registered are generally subject to a much less rigorous Agency inspection regime than registered ones. In some cases, however, they may be subject to provincial and territorial inspection.

25.72   We expected that the Agency would assess the risks to food safety that exist in the sector; determine the level of risk that will be managed; determine the resources needed to deliver the program appropriately; consult the provinces, industry and the public; and inform Parliament on the options that existed for changing the focus of its inspection activities. We found that specific risks had been identified and that priorities were set for these risks. Further, we found that the

workplans had been developed so that effort was directed based on these priorities. However, we did not find an overall assessment of risk, a decision on the level of risk to accept, a determination of required resources or sufficient consultation on options.

The Agency has recognized a need to change the focus in managing the sector

25.73   After the amalgamation, the Agency recognized that this program could not be delivered as designed with existing resources. As a result, it undertook an organizational review then a program review to clarify the Agency's mandate for this sector as well as the design and priorities of the program. Based on these reviews, the Agency developed a work plan to use the existing program resources as effectively as possible.

25.74   Following the organizational and program reviews, the Agency created the Bureau for Food Safety and Consumer Protection. The reviews concluded that with existing resources of about 160 positions, the Bureau, through its programs would place priority on activities related to recall investigations

and emergency response, and address specific problems in the food industry on a risk priority basis. To deal with specific risk related problems, the Agency will undertake projects that may include inspection, sampling, education and partnerships with industry and provinces. This new approach focusses on identifying specific risks and necessary industry controls to effectively manage the risks, rather than focussing mainly on establishment inspection. For example, the Agency has been working on projects with the sectors of ready-to-eat meat, sprouts, bottled water and unpasteurized juice. This approach means that the Agency will no longer endeavour to undertake regularly scheduled inspections of all non-federally registered establishments covered under the previous program design.

25.75   It is our opinion that while the change in focus may be reasonable, the Agency needs to more comprehensively assess the risks that must be managed, decide on how much risk to accept and determine the resources it needs to deliver an appropriate program based on those risk decisions.

Exhibit 25.8

Federal Registration Is Not Influenced by Risk to Food Safety

Notes:

1. Health Canada established the risk levels before the creation of the Agency in 1997.
2. Establishments that produce infant formula are subject to more rigorous requirements than other non-federally registered establishments.

Source: Documents of Health Canada and the CFIA

Commodity	Risk Level[1]			
	High **1**	**2**	**3**	**Low** **4**
Registration not required				
• Unpasteurized juice	X			
• Infant formula[2]	X			
• Peanut butter (processed)	X			
• Mineral water		X		
• Chocolate made from cocoa beans		X		
• Coffee				X
Registration required, if traded inter-provincially or internationally				
• Ready-to-eat meat	X			
• Processed eggs	X			
• Ketchup			X	
• Fruit jams and jellies			X	
• Pasteurized juice				X
• Raw meat				X

Assessment of overall risks is needed

25.76 The new approach is intended to focus on identifying and prioritizing risks based on risk assessments by Health Canada, reviews of problems resulting in investigations and recalls, information obtained through international environmental scans and the experience and knowledge of staff. However, it does not include an overall assessment of risks in this sector. An overall assessment would involve gathering information on matters such as the size and distribution of the sector, the hazards in the sector and the controls that industry has developed to manage those risks, among other things. A starting point is the work done by the Agency in the baked goods industry, which will provide important information for assessing the risks to food safety in this industry. The Agency has not undertaken studies for any other non-federally registered industries. Without a more comprehensive knowledge of the risks in these industries, the Agency cannot be sure what impact the change in focus will have on food safety.

25.77 The resources that are allocated to the non-federally registered sector continue to be based on already existing resources of 160 staff positions. This sector represents about half of the food production industry in Canada and is involved in half of the recalls for food produced, yet only some five percent of the Agency's resources are allocated to the sector. Even though the provinces and municipalities are also active in this sector, it is not clear whether federal resources are adequate, based on the risks that this sector may present. Without an overall assessment of risks and decisions on how much risk to accept, the Agency cannot determine the number of resources it needs to adequately deliver its programs. A process to support risk-based resourcing, as discussed previously, would allow the Agency to determine the resources necessary to deliver this program.

The focus has changed without broad consultation on inspection options

25.78 We would have expected the Agency to consider a range of possible options when undertaking a change in the management of this sector. This would involve asking questions such as whether it needs to create a resource intensive inspection regime, at one extreme, or whether it needs to merely respond to consumer complaints, at the other extreme. Further, we would have expected the Agency to consult widely with the provinces, industry, and the public and inform Parliament on the options available.

25.79 The Agency did not examine the full range of options available. In addition to constraints caused by the existing level of resources, the Agency believes that it is constrained from taking a greater role in managing this sector because of the allocation of responsibility between the federal and provincial governments outlined in the Constitution. It believes that the provinces are better positioned to deal with the challenges in this sector because they have greater legislative flexibility under their public health mandates.

25.80 Because the Agency shares the responsibility for this sector with the provinces, it is important that the Agency understand the provinces' activities, what information they hold and their contribution to food safety in the sector. In our 1994 Report we noted that federal officials responsible were "not obtaining complete information from the provinces on the nature, extent, timing and results of food safety inspections they undertake" with the aim to "co-ordinate inspection activities and share information." The Agency has assigned staff to work with provinces; however, sharing of information such as work plans remains limited. In discussions with provincial officials, we were told that the provinces were aware of the Agency's change in focus, but they were not consulted or

Without an overall assessment of risks and decisions on how much risk to accept, the Agency cannot determine the number of resources it needs to adequately deliver its programs.

otherwise involved. According to provincial officials, because the Agency still has not formally articulated its plans for this sector to the provinces, it is difficult for the provinces to plan for the impact that the change will have on their operations.

25.81 The Agency consulted its staff to determine the best way to manage the non-federally registered sector. However, it neither informed nor consulted the public on the change in focus. Parliament also has not been informed of the change, despite the significance of the related safety issues in the sector: the size of the sector, the risks of the sector, resources available for the sector and the fact that provinces also contribute to the management of the sector. We believe that the Agency needs to involve the public, the provinces and Parliament in a thorough examination of how much attention the Agency should give to the sector.

25.82 As part of the current change in focus to managing the non-federally registered sector, the Canadian Food Inspection Agency should assess the risks to food safety in this sector; determine the level of risk to accept; determine the resources needed to manage this sector based on the assessment of the risks; work more closely with the provinces; consult the provinces, industry and the public; and inform Parliament on the options available for managing this sector.

Agency's response: The CFIA disagrees with the Office of the Auditor General's recommendations for managing CFIA responsibilities in the non-federally registered sector. The CFIA's concern with the analysis and resulting recommendations results from the Office's misunderstanding of two significant issues: the CFIA's mandate in this sector; and, the complexity of risk and the CFIA's role in managing risk.

Mandate: The CFIA's ability to assume responsibility for the regulation of all food production and related activities in Canada is constrained by existing legislation and the limits of the Constitution of Canada. This position is based on a series of court decisions that have interpreted the division of authorities among the federal and provincial governments.

The Canadian Food Inspection Agency Act *authorizes the Minister of Agriculture and Agri-Food to order a recall of any food product that poses a risk to food safety, regardless of whether it originates from a registered or non-registered establishment. The CFIA takes immediate action in all situations brought to its attention that require a food safety investigation or a product recall. It should be noted, however, that the overwhelming majority of recalls are undertaken voluntarily by industry and that the CFIA monitors the effectiveness of these recalls.*

The CFIA will continue to collaborate with the provinces to provide seamless delivery of food inspection services. The CFIA has working arrangements (MOUs) in place with Health Canada and the provincial and territorial governments to facilitate food inspection activities. These MOUs are being amended and strengthened to increase their scope and to update activities and respective roles.

Risk: Risk is dependent on the probability of an adverse effect and the magnitude of that effect, resulting from food hazard(s). Risk is cumulatively influenced by the effectiveness of controls exercised at all stages of the food chain, including the consumer level. The concept and application of risk analysis continues to evolve internationally and the CFIA is participating in international fora developing this concept.

In the non-federally registered sector, the CFIA has recently implemented a new approach to identify and establish priorities for the management of risk. The CFIA recognizes that the level of risk is

reduced when the industry implements appropriate controls to prevent, eliminate, or reduce hazards to acceptable levels at key segments of the food chain and key stages of processing. The most effective way for the CFIA to have an effect on reducing risks is to work with the industry and other government agencies to identify potential hazards and to implement appropriate controls. To identify potential hazards, the CFIA reviews the risk assessments conducted by Health Canada; the information based on a review of food safety investigations, analytical results, and food recalls; information obtained through international environmental scans; and, the experience and knowledge of its specialists. The CFIA then identifies the current level of control exercised by the industry and the risk management approaches which are expected to have the greatest effect on improving the industry's controls to reduce the level of risk. In determining the most effective risk management approaches, the CFIA considers the role and possible contribution of its partners, such as the provinces, to managing the risk.

The expectation of the Auditor General, to fully assess this sector in terms of potential hazards and levels of controls currently in place, is neither possible nor reasonable. The potential hazards associated with foods sold by this sector include the entire spectrum of microbiological, chemical, and physical hazards. Concepts related to risk analysis and relative risks are still evolving at the international level. As noted in the report, the Food and Drugs Act *applies to all persons who sell or process food. This includes all processing establishments, retail outlets, wholesalers, restaurants, food service outlets, and any other premises selling food of any description. The number of establishments, which is constantly changing, is well in excess of the 100,000 noted in the report. The approach suggested by the Auditor General lacks reasonableness and is far*

from the most cost-effective approach to reducing levels of risk.

The CFIA focusses its resources on areas where there is a need for industry to strengthen its controls. The level of CFIA effort is influenced by the degree of control exercised by the industry, the nature and seriousness of the potential hazards, and the efforts taken by provincial and territorial governments. The CFIA agrees that it is important to work in partnership with the provinces and the CFIA's MOUs with Health Canada and most provincial and territorial governments facilitate risk management activities. The CFIA has informed the provinces of the priorities in the non-registered program sector and is planning a greater effort to consult with the provinces and industry, as noted in this report. As noted in the response to recommendation 25.150, the CFIA is working to enhance its consultation and outreach approach to encompass as wide a target audience as possible, including consumers and public health stakeholders.

The CFIA will continue to inform Parliament through the Minister on changes such as these, which enhance the effective and efficient operations of the food inspection programs.

Approach Based on Hazard Analysis and Critical Control Points

25.83 The approach based on the principles of hazard analysis and critical control points (HACCP) for food processing has been designed as a cost-effective alternative to improving food safety. It is rapidly becoming the international standard for trade in value-added products. Implementing HACCP-based systems will likely become essential for food producers and processors to enhance their competitiveness and access in the domestic and global markets. For example, in 1996 the United States began, in stages, to require that meat-slaughter

and meat-processing establishments adopt a HACCP-based system, which affects Canadian establishments exporting to the United States (U.S.). In Canada, a growing number of food retailers will only accept food from suppliers that have a HACCP-based system. As well, the United Nation's Codex Alimentarius Commission strongly recommends the use of HACCP-based systems to improve food safety. As a result, HACCP principles are being applied throughout the food production continuum, including on-farm and at food retailers.

25.84 HACCP-based systems are widely believed to have several benefits. They are designed as tools that produce safer food and require industry to take more responsibility for the production of safe food. HACCP-based inspection programs can allow inspectors to focus on those areas that present the greatest risks to food safety and can help to improve efficiency in inspections. They can also allow some resources of the Agency to be allocated to other areas.

25.85 To implement a HACCP-based system, the processor must develop operational plans based on HACCP principles. It must then incorporate these plans into its operations and perform regular monitoring and verification activities to determine whether the plans are functioning adequately. HACCP-based systems are further explained in Exhibit 25.9.

25.86 As the food industry adapts its operations to HACCP-based systems, the government may adapt its approach to food inspection. In a traditional inspection program government inspectors focus on the food-processing establishments, inspecting the processing conditions and the final product before distribution. A HACCP-based inspection program is designed to include two functions. First, a review verifies that the processor's operational plans respect the HACCP principles and meet the minimum

requirements of the program. Second, regular audits check the adequacy of the establishment's activities in ensuring compliance with the operational plans. HACCP-based inspection programs are further explained in Exhibit 25.9.

25.87 The Agency has further redesigned the poultry slaughter inspection program for establishments operating under the HACCP-based approach. This program requires industry to perform ante- and post-mortem detection activities. Agency inspectors then provide continuous monitoring and oversight of industry's detection activities. This program also includes a pathogen-reduction effort. The redesign is further explained in Exhibit 25.9.

The Agency has developed and implemented HACCP-based programs for most industries

25.88 Several programs have been developed to adapt the HACCP-based approach to individual industries. In 1989 the government began to develop the Food Safety Enhancement Program (FSEP) for the beef, pork, poultry, dairy, processed fruits and vegetables, egg, honey and maple syrup industries. Participation in the FSEP is voluntary. The first program to incorporate the HACCP-based approach in Canada and the first mandatory program in the world is the Quality Management Program (QMP), which began development in 1989 for the fish-processing industry (see Exhibit 25.10). A further redesign of the HACCP-based approach for the meat industry began in 1996 when the Agency started to develop the Modernized Poultry Inspection Program (MPIP) for the poultry industry.

25.89 We expected that the Agency would have a formal strategy to guide the implementation of the HACCP-based approach. This strategy would consider the time required to implement the approach, assess the impact on resources and determine a way to measure the

Systems based on the principles of hazard analysis and critical control points (HACCP) are widely believed to have several benefits, such as improving food safety.

Exhibit 25.9

Approach Based on the Principles of Hazard Analysis and Critical Control Points (HACCP)

The key element of a HACCP-based system is its preventative nature and control throughout the manufacturing process at each critical step, called a critical control point (CCP). By identifying CCPs, the processor can easily detect and correct food safety concerns at these points before it processes and packages the product.

A HACCP-based system has seven basic principles:

1. conduct a hazard analysis;

2. determine the CCPs;

3. establish critical limits;

4. establish a system to monitor control of the CCP;

5. establish the corrective action to be taken when monitoring indicates that a particular CCP is not under control;

6. establish procedures for verification to confirm that the HACCP-based system is working effectively; and

7. establish documentation concerning all procedures and records appropriate to these principles and their application.

These principles are also used by Canada's trading partners, such as Australia, New Zealand, the United States and countries of the European Union.

Food Safety Enhancement Program (FSEP): A program for the industries of beef, pork, poultry, processed fruits and vegetables, dairy, egg, honey and maple syrup

To participate in this program, the processor identifies each CCP in an operational plan. These plans are reviewed and, if deemed adequate to control hazards, are recognized by the Agency. Processors must also develop a prerequisite plan to prove that their transportation, storage, sanitation, and other systems meet the Agency's criteria. These plans are also recognized by the Agency.

Once a processor has adopted a HACCP-based system, the Agency can replace traditional inspection with HACCP-based inspection. Under HACCP-based inspection, the Agency will check the adequacy of the controlling and monitoring procedures of the processor and verify the processor's records of the monitoring procedures. End-product testing is completed as necessary. The design of an inspection program determines how often the Agency inspects a processor.

Quality Management Program (QMP): A program for fish processors

Under this program, the processor must develop and implement a QMP plan, which includes an operational plan, a prerequisite plan and a regulatory action plan. The QMP plan outlines control measures that are necessary for the production of safe and wholesome product. The Agency assesses the plan for compliance with the Fish Inspection Regulations.

Regular audits by the Agency are designed to verify that these plans have been implemented as written and that they are effective in maintaining compliance with regulatory requirements.

Modernized Poultry Inspection Program (MPIP): Further program redesign of the HACCP-based approach for the poultry industry

Under current poultry inspection programs, Agency inspectors perform ante- and post-mortem (before and after death) inspection of the animal. Under the MPIP, trained and accredited industry staff conduct post-mortem detection, while Agency inspectors provide continuous monitoring and oversight of industry's activities. It is intended that industry will also perform ante-mortem detection, although the current MPIP pilot establishments do not yet do so. The MPIP also incorporates a pathogen reduction effort.

The MPIP is running as a pilot project. Research and development for the MPIP began in 1996; the pilot began in September 1997. The Agency set a goal of having 20 percent of poultry establishments participating in the MPIP pilot in 1999–2000. Today, participation is 11 percent (seven establishments).

(cont'd)

Canadian Food Inspection Agency — Food Inspection Programs

Exhibit 25.9 (cont'd)

The development of the MPIP has been a significant undertaking for the Agency. In developing the MPIP, the CFIA consulted industry, consumers and the unions representing CFIA employees. Pilot establishments were identified, and prepared to participate in the program. Training programs for staff, accreditation programs for industry detectors and presentation and finished product standards have also been developed. The Agency developed a pathogen reduction program. Flock sheets have been developed that extend the impact of HACCP on the production to consumption continuum. Regulations of the *Meat Inspection Act* are being updated, and equivalency for the inspection program from the United States (U.S.) is pending. The lessons learned in developing the MPIP will be useful to the Agency in developing similar programs for beef and pork.

Ante- and post-mortem inspections

Ante-mortem inspection involves the visual inspection of live animals for evidence of illness. It is effective in identifying conditions that cause abnormal behaviour. Post-mortem inspection involves an examination by sight, touch and smell of a carcass and organs. It is effective in detecting carcasses affected by diseases that are visible to the naked eye or can be detected by smell or touch, such as tuberculosis and cysticercosis. However, fewer animals going to slaughter have these diseases because of healthier livestock. Post-mortem inspection is not effective at detecting food-borne microbial pathogens of public health significance, such as certain strains of E. coli or salmonella. Generally, microbial hazards that cannot be detected through this means are a greater risk to consumers than those that can. Laboratory testing is the most common way to detect these hazards.

Pathogen-reduction effort

A pathogen-reduction effort involves laboratory testing to verify the effectiveness of control measures taken to control microbial hazards. Laboratory testing programs have been developed by the U.S. government in response to concerns raised by the National Academy of Science in the United States that new methods to supplement ante- and post-mortem inspection were needed to better detect microbial hazards. This is one of the reasons why the United States introduced its own Pathogen Reduction Program as part of the introduction of the HACCP-based approach. The U.S. program illustrates some of the important elements of a pathogen-reduction effort.

The U.S. government completed national baseline surveys of the prevalence of food safety hazards for eight categories of slaughtered animals. Using this data, the U.S. Department of Agriculture (USDA) established a salmonella performance standard and required establishments to achieve a prevalence for salmonella contamination that is below the prevalence rates shown in the baseline surveys. Salmonella has been targeted because it is the leading cause of food-borne illness among microbial pathogens, has a known presence on most types of raw meat, and it can be tested in a variety of products.

The USDA is also requiring establishments to test for generic E. coli because it is a good indicator of the adequacy of the establishment's process controls for fecal contamination. The USDA is adopting generic E. coli verification performance criteria based on the results of the baseline survey. The criteria are guidelines, not regulatory standards. The program is designed so that the USDA routinely tests for salmonella and the establishment regularly tests for generic E. coli to ensure that the product does not exceed the standards or guidelines. The routine testing also allows the USDA to measure the success of the implementation of its program. It is considering an expansion of microbial testing to include other pathogens, such as campylobacter.

Source: CFIA's documents and other sources

approach's effectiveness in improving the safety of food. We found that while the Agency continues the implementation of the HACCP-based approach, it does not have a formal strategy for the Food Safety Enhancement Program. We also expected that the Agency would be fully considering the further redesign of the HACCP-based approach and a pathogen-reduction program for the meat sector. We found that it has developed a new program for poultry, but has no formal strategy for the beef and pork industries.

25.90 In the 1997 business plan, the Agency stated that "in consultation with industry, [it] will move toward a staged requirement for [the] HACCP [-based approach] in all federally registered food-processing establishments." The Agency continues to consult industry on the implementation of the approach. As of June 2000, mandatory HACCP-based systems are only required for fish processors (QMP). For all other commodities, implementing HACCP-based systems remains voluntary.

25–26

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25.91 The Agency has explained that participation in the Food Safety Enhancement Program (FSEP) for the meat industry has remained voluntary in part because of the mandatory requirement for HACCP-based systems in the U.S. Because of this U.S. requirement, many of the large and medium-sized meat establishments in Canada are operating under the HACCP-based approach. With so much of the industry operating under the HACCP-based approach, the Agency decided to allow participation to remain voluntary. The Agency has recently begun consultations with industry to discuss the transition to a mandatory program. The Agency has also confirmed its intention to continue to allow participation in the FSEP for all other commodities (dairy, egg, processed fruits and vegetables, honey and maple syrup) to remain voluntary.

A formal strategy is needed for the implementation of the HACCP-based approach

25.92 Planning for the Food Safety Enhancement Program began in 1989. In 1991 a goal of full implementation of mandatory participation in the FSEP was set for 1996. As a result of many factors, including the creation of the Agency, this goal was not achieved, and a new strategy to guide implementation has not been developed.

25.93 The Agency began to recognize HACCP plans under the FSEP in 1997. As of July 2000 the HACCP plans of 263 establishments had been recognized, 618 have applied for recognition (they have implemented a HACCP plan and are waiting for recognition), and 1,330 had not yet applied for recognition (see Exhibit 25.11). Over the last several years, the Agency has focussed its efforts on recognizing the HACCP plans of those meat establishments that export to the U.S. The Agency and industry were successful in meeting the implementation deadlines established by the U.S. However, at the present rate of recognition

of HACCP plans, the transition to the FSEP will likely continue for some time.

25.94 The Agency had no plan for dealing with resource constraints that would be created during the transition period to the FSEP. We noted that the Agency had recognized the HACCP plans of some establishments several years ago, but it has not yet conducted HACCP audits because of a lack of resources. We also noted that some employees who had received HACCP training to recognize an establishment's HACCP plan were concerned that their training would be "stale" by the time they were available to complete audits. In the interim, inspectors continue to perform traditional inspection activities in these establishments, which requires them to be trained in both types of inspection activities.

25.95 The Agency has neither completed an analysis of the resources that could be freed from the implementation of the FSEP nor has it calculated the possible savings from the further redesign of the HACCP-based approach to include the beef and pork industries. It has estimated that about $4 million of resources currently allocated to the poultry program could be reallocated annually to areas of higher risk through the implementation of the MPIP. It also has not formally considered where any saved resources would be reallocated.

25.96 The Agency has not developed a means to measure the success of implementing the HACCP-based approach in order to achieve its goals of improving the efficiency and effectiveness of food inspection programs and improving food safety.

Recently, the Quality Management Program (QMP) was re-engineered for improvement. This exercise incorporated some good planning practices. In particular, an implementation strategy was developed and milestones and deadlines were set. All 985 fish-processing establishments have developed and implemented a QMP plan that incorporates all the principles of HACCP.

Exhibit 25.10

Re-engineering the Quality Management Program

Source: CFIA's documents and other sources

25.97 Based on these observations, we believe that a formal strategy for guiding the implementation of FSEP and the further redesign of the HACCP-based approach is needed.

A further redesigned program for beef and pork could take many years

25.98 Under the regulations of Canada's 1907 *Meat Inspection Act,* and of similar legislation in the U.S., a government inspector must inspect every animal ante- and post-mortem (before and after death). As a result, traditional inspection programs have required an Agency inspector to perform these inspections. Under a further redesign of the HACCP-based approach, it is possible that ante- and post-mortem inspection be considered as a critical control point. As such, the roles of the government inspector and industry would change. Industry would perform ante- and post-mortem detection. The government inspector would then provide continuous monitoring and oversight of industry's activities in these areas. The MPIP is the Agency's only meat program designed to achieve this change in roles. To accommodate the change, the Agency is amending the regulations of the *Meat Inspection Act* so that establishments would not be in violation of the legislation. The U.S. Department of Agriculture has experienced some legal challenges and continues to work on making this change possible in the U.S.

25.99 Given that Canadian producers and processors are major exporters of products to the U.S., this situation has a significant influence on Canadian food inspection programs. Because of this influence and the legal challenges that the U.S. has experienced in making this change possible, the Agency has chosen not to continue to be in the lead internationally in developing programs and preparing industry for this change in roles.

25.100 Many members of the international food safety community believe that there are a number of advantages in requiring industry to perform ante- and post-mortem detection with continuous monitoring and oversight by government officials. For example, because post-mortem inspection is limited in its ability to detect hazards that present the highest risk, the change in roles would allow government inspectors to spend time on those activities that protect against the highest risks. Finally, it allows industry to take greater responsibility for detecting unsafe food.

25.101 The change in roles is a goal for a number of Canada's trading partners, in particular the U.S. and Australia. The U.S. continues to pilot test projects in the poultry and pork industries, and Australia is running a pilot project in the beef industry. These projects are similar to the MPIP.

25.102 The MPIP began four years ago. No programs involving the requirement

Exhibit 25.11

Number of Establishments With Recognized HACCP Plans Under the FSEP, as of July 2000

Commodity	Number of establishments	Applications for HACCP recognition		Number of recognized plans	
Meat	734	486	(66%)	226	(31%)
Dairy	262	57	(22%)	22	(8%)
Egg	358	28	(8%)	7	(2%)
Processed fruits and vegetables	266	41	(15%)	6	(2%)
Honey	87	2	(2%)	1	(1%)
Maple syrup	241	4	(2%)	1	(0.4%)
Total	**1,948**	**618**	**(32%)**	**263**	**(14%)**

Source: CFIA's establishment tracking report

for industry to perform ante- and post-mortem detection in either the beef or pork industries have been initiated, although there has been some initial planning. Given the length of time it has taken to implement the MPIP and the fact that the Agency has not started programs for these other industries, changes could take many years.

There is no pathogen-reduction effort for the Canadian market

25.103 A pathogen-reduction effort involves laboratory testing to verify the effectiveness of the control measures that exist to control microbial hazards. Laboratory testing programs have been developed in the U.S. in response to concerns raised by the U.S. National Academy of Science that new methods be developed to better detect microbial hazards. The effort involves the setting of standards, guidelines or action levels for unacceptable prevalence rates of certain hazards in the food supply based on existing prevalence rates of microbial hazards. These prevalence rates are determined through national baseline surveys. Establishments are required to regularly test samples to monitor the prevalence of microbial hazards in their processing systems and final products. Sample results must be below these standards, guidelines or action levels for the establishment to be able to sell its product. If the standards, guidelines or action levels are exceeded, then the establishment must take action to improve its controls. The government can also use the sample results to measure the success of the implementation of the HACCP-based approach and the pathogen-reduction effort.

25.104 Because of the U.S. requirements, all Canadian meat exporters to the U.S. must meet the U.S. standard for salmonella and the U.S. guideline for generic E. coli. In the event that the standard was not met, the establishment would not be eligible to export but would still be able to produce for the Canadian market because there is no similar pathogen-reduction effort in Canada.

25.105 Canada has not introduced a pathogen-reduction effort as part of the HACCP-based approach (FSEP) for beef, pork or poultry, except for processors involved in the MPIP pilot. The MPIP pathogen-reduction effort, based on the U.S. Pathogen Reduction Program, requires testing for salmonella and generic E. coli. Based on the results of the national baseline survey, interim action levels for these microbial hazards have been set for establishments that participate in the MPIP.

25.106 To introduce a pathogen-reduction effort in Canada, the Agency would need national baseline surveys on the prevalence of pathogens. The Canadian Poultry and Egg Processors Council initiated such a survey for the poultry industry. This survey was completed with the assistance of the Agency, Health Canada and Agriculture and Agri-food Canada. The results of the survey were used to develop the MPIP pathogen-reduction effort. The Canadian Meat Council intends to undertake a national baseline survey for the beef and pork industries, pending the acceptance of a funding request to Agriculture and Agri-Food Canada.

25.107 The decision of whether to embark on initiatives, such as industry involvement in ante- and post-mortem detection and pathogen-reduction efforts, is a matter for the Agency and the government to decide. The Agency has decided to move slowly on these initiatives in the wake of legal challenges in the U.S. Given the issues of food safety and value-for-money, we believe that the Agency needs to involve the public and Parliament in a broad public debate on questions such as the following: Should participation in HACCP-based programs be mandatory? Should Canada be leading internationally in implementing the further redesign of the HACCP-based

Except for processors involved in the pilot of the Modernized Poultry Inspection Program (MPIP), there is no pathogen-reduction effort for the Canadian market.

approach in the meat industry? Should a pathogen-reduction effort be launched for the Canadian market?

25.108   The Canadian Food Inspection Agency should develop a more formal strategy for managing the implementation of the approach based on the principles of hazard analysis and critical control points. Further, the Agency should consider developing programs that require industry to perform ante- and post-mortem detection for the beef and pork industries, should ensure that national baseline surveys are available, and should consider implementing a pathogen-reduction effort for the meat industry.

Agency's response: The CFIA has a formal strategy for managing the implementation of the hazard analysis critical control points (HACCP) based approach. As noted by the Auditor General, the CFIA stated in its 1997 Business Plan that it will move toward a staged requirement for HACCP in all federally registered food processing establishments. This approach is being implemented. As indicated in the audit, all targets and goals for implementing HACCP in the meat and fish sectors were met or surpassed. The CFIA is an international leader in implementing HACCP throughout the entire food chain from "gate to plate". As well, the CFIA enjoys broad consumer and industry support for the pace and direction it has set in implementing HACCP following the staged requirements.

A number of HACCP initiatives are underway in various sectors. The CFIA is developing an approach for the evaluation of these projects and subsequent consultation with stakeholders on implementation decisions.

With respect to beef and pork meat inspection, policy decisions will be made following consultations that will focus on factors such as scientific (food safety),

legal, international trade, and human resource implications. Other program changes, including the issues raised by the Auditor General, will evolve following full consultation with all stakeholders.

Management of Compliance Activities

25.109   A primary goal of food inspection programs is to verify that industry complies with the legislation governing the food industry. To assess compliance, Agency inspectors inspect premises and products. They also investigate complaints from industry or the public.

25.110   If inspectors find evidence of non-compliance, they have a number of options available to secure correction of the problem by establishment management (see Exhibit 25.12). The compliance action taken by the inspector depends on several factors, including the nature of non-compliance and the legislation governing the inspection. Inspectors inform establishment management of the non-compliance problems and may set deadlines for their correction. If the problems remain uncorrected, inspectors may take more serious compliance action or recommend enforcement (i.e., legal) action. In cases where serious health and safety hazards are found, inspectors have the authority to take immediate corrective measures by shutting down production, detaining or seizing products or by revoking the establishment's registration or license, until the problems are corrected. It is common for inspectors to work with establishment management to obtain compliance.

25.111   Under current legislation the compliance and enforcement options vary greatly. Some legislation is limiting because it does not provide options to appropriately deal with the range of seriousness of the non-compliance problems. To address these limitations, the proposed *Canada Food Safety and Inspection Act* was designed to enhance

the Agency's ability to develop regulations that would provide options to better deal with the range of seriousness of non-compliance problems. It would also provide more consistency in its compliance options across all food inspection programs.

25.112 Agency policy requires inspectors to take the action that they believe will lead to compliance in the shortest time and that will prevent problems from recurring. This policy is important because in serious cases of non-compliance, failure to take appropriate action could result in the sale of unsafe food. The Agency relies mainly on inspector training and experience, inspection manuals, supervision, and information systems to help ensure that inspectors appropriately manage non-compliance.

25.113 We expected that the Agency would have mechanisms in place to help ensure that the compliance activities of its food inspection programs are delivered appropriately. We found that while these mechanisms exist, the Agency has not taken full advantage of them. Further, in our review of 21 inspection files, we identified a number of cases in which the same or similar non-compliance problems persisted or recurred. Given these problems, we found that the action taken was insufficient to achieve the Agency's goal of timely correction of non-compliance by establishment management either because inspectors did not take more serious action or because the legislation did not provide adequate options for more serious compliance action.

Problems exist in compliance activities

25.114 We reviewed 21 inspection files for establishments that had either recalled food or been prosecuted in the last two years. In 1999–2000 the Agency participated in 243 recalls and was responsible for 59 successful prosecutions.

In reviewing these files, we looked at reports on inspections carried out before and after the creation of the Agency. Further, we interviewed the inspectors responsible for 12 of these establishments. Our review found the following:

• In 10 establishments, inspectors either did not verify that establishment management had corrected the problems within the given deadlines or did so on only some occasions. In 11 establishments, inspectors regularly verified that establishment management had corrected the problems within the deadlines given.

• In 16 of the 21 establishments, we noted that the same or similar problems recurred or persisted. In six of these, the inspectors either did not choose or, because of legislative limitations were unable, to take more serious action as a means to secure correction of the problem. In 10 establishments, we found that inspectors had taken some more serious action to secure compliance. This action included increasing inspection frequency, detaining products, issuing warnings to establishment management that prosecution would be recommended, and prosecuting the establishment.

• The significance of these failed compliance actions is demonstrated by the

- Warnings
- Collection of samples
- Downgrading of the establishment's rating
- Demand for notification of imported products
- Seizure of product
- Mandatory recall orders
- Injunctions
- Refusal to issue or renew licences, registrations or permits
- Suspension, revocation or cancellation of licences, registrations or permits
- Shutdown of production
- Enforcement (i.e., prosecution)
- Monetary penalties
- Forfeiture (on conviction)
- Removal of illegal imports
- Arrest

In 16 of the 21 establishments we reviewed, we noted that the same or similar problems recurred or persisted for 12 to 28 months.

fact that in the 16 establishments where the same or similar problems continued or recurred, most of these problems persisted for 12 to 28 months. The problems related to prevention of cross contamination, housekeeping, condensation, rust, flaking paint, and product labelling (see Exhibit 25.13). Given the persistence of these problems, we question whether the actions taken were sufficient to secure correction of the problem. These problems also highlight the need for better compliance options under the Agency's legislation.

25.115 Because our sample was limited in size and focussed on high risk establishments, conclusions on all Agency compliance activities can not be drawn from our review. Nevertheless, we are concerned that a high proportion of the reviews identified problems with compliance actions, and, in particular, that the same or similar problems recurred or persisted.

More attention to managing compliance activities is needed

25.116 Program audit is the chief mechanism that the Agency uses to

determine whether inspectors are delivering food inspection programs according to the Agency's standards. As such, it is an important means to assess whether they are taking sufficient and appropriate action to obtain compliance.

25.117 Since the amalgamation of the three departments, the Agency has had some difficulty integrating the program audit functions; it harmonized them only in early 1999. To date, the Agency has only conducted three pilot audits, which are not yet complete.

25.118 Audits of the Agency's programs by our international trading partners and Health Canada's assessments also provide information on the results of the Agency's activities. Several of these audits and assessments have been completed since 1997. However, the Agency cannot rely solely on them for information because it does not determine their scope and timing.

25.119 The Agency has taken steps to improve its enforcement (i.e., legal) actions (see Exhibit 25.4).

25.120 The Canadian Food Inspection Agency should identify and adopt

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Exhibit 25.13

Examples of Persistent Problems Noted by Agency Inspectors

Prevention of cross contamination
- "Sales personnel were seen frequently moving through the raw product area to reach [the] finished product area to pack and ship their orders. These practices can lead to the contamination of finished ready-to-eat products with micro-organisms from raw [products]."
- "There are no hand washing facilities in [the] cooking and packing areas. Since raw [products] are also handled in these areas, potential exists for contamination of cooked products. These practices can lead to the contamination of finished ready-to-eat products with micro-organisms from raw [products]."

Housekeeping
- "Sanitation of underside of equipment to be properly cleaned on a daily basis."
- "I found your sanitation in the grading room and equipment as totally unacceptable. Your sanitation protocol states that grading room and equipment are washed daily after … [product] grading. Your immediate attention is required to ensure a safe food product."
- "[product] parts [found] on scale."

Condensation
- "Prep[aration] room — product stored under reefer [i.e., refrigeration] deflector [condensation]."
- "New meat storage cooler — condensation around ceiling access."
- "Chopping and stuffing [area] — condensation build-up on reefer units."

Source: CFIA's inspection files

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management practices that reasonably assure the achievement of its policy of timely correction of non-compliance with no recurrence. The Agency should develop possible regulatory and legislative options to provide the necessary tools for dealing with non-compliance.

Agency's response: The CFIA has identified the need for improved consistency in compliance strategies and approaches. Compliance strategies and approaches that complement the current enforcement policy are being strengthened. The CFIA is pleased that the Auditor General has recognized the significant steps that the CFIA has taken to improve the quality and consistency of its enforcement actions.

The CFIA will continue to pursue and develop legislative options and recommend their introduction before Parliament.

Management of Human Resources

25.121 Because of its status as an agency, the CFIA has more flexibility than other government departments in human resource management. As a separate employer exempt from the *Public Service Employment Act,* it can develop and apply its own recruitment and staffing policies and practices. The Agency also has the authority to design and implement programs for job evaluations and salary and administration, which are distinct from the public service. However, it must seek approval for its negotiating mandate from the Treasury Board.

25.122 In 1999 the Agency was one of several government organizations that participated in a study by the Committee of Senior Officials. The committee was charged with assessing the regulatory and inspection community in the government, which was identified as being at risk.

Among the committee's concerns were the relatively high age profile of some occupational groups and high future attrition rates. The study is discussed in more detail in our report, Chapter 24, Federal Health and Safety Regulatory Programs.

The Agency has made progress in human resource management

25.123 We expected that the Agency would have a plan for the work force it needs in the future. We found that the Agency had made progress in human resource management. Examples include the training program for the implementation of the HACCP-based approach, hiring and promoting in the executive category, consolidating the 27 bargaining units into four, completing negotiations on several union contracts, commencing the review of Primary Product Inspectors and developing a guide to help managers plan for human resources.

The Agency needs to better understand future human resource requirements

25.124 However, there are a number of concerns that could affect the Agency's ability to manage its resources in the future. Analysis of the Agency staff profile indicates an aging work force, particularly in the veterinary science and inspector groups. The Agency estimates that by 2006, 734 indeterminate employees will be eligible to retire, including 33 percent of the veterinary science group and 29 percent of the inspector group. We were told that the Agency has already experienced some difficulty in recruiting for some positions. The Agency needs a plan to deal with these future retirements and departures. Also of concern is that there are no competency profiles for the inspector group to help the Agency hire the right people. The Agency has no national database to track and manage training. Because the Agency has no information

on turnover of HACCP-trained staff, it does not know the extent of loss of staff with this important skill. Adequate training is required to ensure that recruits are prepared for their job. We have determined that it is often difficult for staff working in meat hygiene, the Agency's largest front-line inspection group, to find time for training because of resourcing pressures. Finally, the conflict-of-interest and post-employment code could be strengthened.

The Agency has not measured employees' views on the work environment Agency-wide, despite a commitment to do so.

25.125 In the Agency's 1998 human resource strategy, it stated that progress in fostering a positive work environment would be measured by performance assessment and employee feedback tools such as surveys and focus groups. Most other organizations in the federal government commonly use these tools. Although the Agency has begun to conduct focus groups with specific groups at their request, it has not measured employees' views on the work environment Agency-wide, despite the commitment to do so.

25.126 The Canadian Food Inspection Agency should take additional action to identify what it needs in a future work force and to develop a plan for creating the work force that it needs to deliver its mandate in the future. The Agency should measure employees' views on whether Agency values are fully practiced.

Agency's response: The CFIA agrees with the recommendation and is committed to implementing its 2000–03 HR Strategy that identifies key challenges and actions.

The CFIA is now receiving feedback concerning whether its values are fully practised through the HR Planning pilots. It will continue this process over the next three years to support the implementation of the Strategy.

Key Information for Making Management Decisions and Measuring Success

25.127 Responsibility for collecting and analyzing information on food safety is as highly diverse as the responsibility for contributing to safe food. Information is held by individuals, municipalities, industry, provinces and federal organizations. Health Canada does food research, risk assessments and, food-borne illness analysis. The Canada Customs and Revenue Agency tracks declared food imports and Statistics Canada monitors food industry activity and growth. The Agency's role in collecting information is limited; it relies mainly on the information collected by others to carry out its activities. Its managers need to have a good understanding of risks to food safety if they are to make sound risk management decisions. This information also allows the Agency to measure and report the extent to which its management activities and any new initiatives have achieved their objectives.

25.128 Collecting and analyzing information on food safety is made more difficult by the fact that the information is often incomplete. For example, it is estimated that only one to five percent of food-borne illnesses are reported in the U.S. (see Exhibit 25.14). Further, with so many holders of information, any breakdown in the sharing of the information could result in its loss.

25.129 We expected that the Agency would obtain the information it needs, either by establishing its own information systems or by working effectively with its partners, to make effective management decisions and help measure its success in contributing to the safety of the food supply. However, we found that it lacks some of the necessary data.

The Agency has many types of information

25.130 In addition to the experience and knowledge of staff, which routinely forms an important part of decisions, we found many types of information on food safety that are used in the Agency:

• **Incidents.** Managers are well informed of current outbreaks and incidents that might result in recalls.

• **Surveillance and monitoring.** The Agency has a routine sampling program to detect the incidence of chemical residues and microbiological contaminants in foods. However, the value of this information is limited as the information is not sufficiently detailed and there is little analysis of the results to determine overall trends or developments.

• **Risk assessments.** The Agency and Health Canada conduct scientific risk assessments.

25.131 There is important information missing from Health Canada on food-borne illness in humans and the prevalence of pathogens in the food supply has not been determined.

25.132 In Canada, food-borne illnesses are reported to municipal and provincial health departments and to Health Canada through surveillance systems or laboratory-based reporting systems. Officials at the Agency and Health Canada recognize that these systems do not provide appropriate information for the Agency to make the many different management decisions that are necessary. We raised concerns about disease surveillance in our 1999 Report, Chapter 14, National Health Surveillance: Diseases and Injuries.

25.133 Limited work has been done to obtain information on the prevalence of pathogens in the food supply. As noted earlier, a national baseline survey has been completed for the poultry industry. Such a survey may be undertaken for the beef and pork industries. We are not aware of any similar initiatives in other commodity sectors to obtain similar information.

Better information could be used in many ways

25.134 Information on food-borne illnesses in humans is important because it would help the Agency know the extent to which these illnesses are related to its

There is important information missing from Health Canada on food-borne illness in humans, and the prevalence of pathogens in the food supply has not been determined.

In January 1997, following a number of serious outbreaks of food-borne illnesses, the President of the United States announced a plan to strengthen and improve American food safety. One of the initiatives was to improve the information on food-borne illnesses in humans, more specifically to build a national early warning system to detect and respond earlier to outbreaks of food-borne illnesses, and to provide the data needed to prevent future outbreaks. This system would also provide statistics on these illnesses. Another initiative was to improve the information on the prevalence of pathogens in the food supply, namely to increase research to develop new tests to detect food-borne pathogens, to survey the food supply to determine the prevalence rates of pathogens and to assess the risks in the food supply. The result of this political and financial commitment has led to a better understanding of diseases entering the U.S., the way specific government programs are reducing pathogens and the overall scale of food-borne disease in the U.S.

To overcome the difficulties caused by such a large number of unreported cases of food-borne illnesses, U.S. agencies have set up a network of active surveillance sites. The collaborating FoodNet sites have a system to actively identify laboratory-confirmed cases of these illnesses and to perform surveys that more accurately estimate the actual number of people who become sick with diarrhea each year.

The FoodNet project measures the impact of programs aimed at reducing the pathogens in meat and poultry as well as identifying outbreaks that might previously have been undetected or treated as isolated cases

Exhibit 25.14

Collecting and Analyzing Information on Food-Borne Illness: The U.S. Experience

Source: Documents of the U.S. government and other sources

areas of responsibility; more specifically, the Agency would know who is getting sick and why. This information would help the Agency develop plans and approaches to manage those hazards and commodities that are affecting the health of humans and would help it to measure the success of its efforts.

25.135 A national baseline survey provides useful information to understand the prevalence of pathogens in food. In addition, the information can be used to redesign programs, measure the success of a program redesign and set standards of expected performance from industry.

The Agency must work with its partners

25.136 As discussed earlier, collecting and analyzing information on food safety is not the sole responsibility of the Agency. However, the Agency must ensure that it has adequate information to deliver its food safety mandate. While the use of information by partners is often different, the need for it is not. It is important that the partners in food safety work together to collect and analyze the information they need.

25.137 The Agency and Health Canada are already co-operating and making advances with initiatives such as their Food-borne Illness Outbreak Response Protocol. This protocol should allow the two organizations to bring epidemiological and recall information together and should produce a more sensitive and responsive system for dealing with food outbreaks. However, information and analysis is still needed to support policy making, strategic decisions and proper resource decisions.

25.138 The Canadian Food Inspection Agency should work with Health Canada and other organizations to ensure the availability of information needed to manage its food inspection programs and measure the success of its contribution to the safety of the food supply. The Agency should develop better information systems and structures to support management decision making and performance measurement.

Agency's response: The CFIA will continue to work closely with organizations that provide information relevant to the management of its food inspection programs. As noted by the Auditor General, the CFIA is working with Health Canada on initiatives such as the Food-Borne Illness Outbreak Response Protocol. As well, the CFIA is working in partnership with industry, Health Canada, and Agriculture and Agri-Food Canada to conduct base line surveys in meat slaughter plants. The CFIA currently gathers a variety of information on products and establishments needed to assess industry's compliance with food inspection regulations.

Health Canada has the mandate to conduct studies to assess the effectiveness of the CFIA's food safety activities. Three assessments have been undertaken during the past year. The CFIA, through ongoing performance reporting, reports on performance measures that focus on the CFIA's contribution to food safety.

As part of the Y2K initiative, the CFIA successfully consolidated over 100 information systems into 17 new and fully integrated systems. Work is ongoing to enhance the functionality of these systems. The new systems, when fully developed, will facilitate in the collation and presentation of information required to support management and performance measurement.

Communication With Stakeholders

25.139 Being a transparent and responsible organization means maintaining an appropriate dialogue with stakeholders to manage expectations. Among the Agency's important stakeholders are staff, industry groups,

public interest groups, the provinces, parliamentarians and the general public. Transparency requires openness with information, consultation and good public reporting. Because the nature of communication will vary depending on the decision, an organization needs an overall risk communication framework. If an organization is not sufficiently transparent and responsible, then accountability is lacking, trust is damaged, and credibility is at risk.

25.140   Risk communication is important for the Agency because it deals with groups and citizens for whom the concept of risk holds different meaning. Staff may be influenced by work experience and job security; industry may be influenced by its markets; and the public may be influenced by its understanding of and expectations for safe food. A risk communication framework would set out the approach to addressing these different groups and to communicating each type of management decision.

25.141   We expected that the Agency would operate in a sufficiently transparent manner. Specifically, we expected that as appropriate, the Agency would inform stakeholders of risks and involve them in finding risk management options, consider their concerns in its risk management decisions and make these decisions openly and transparently. We found that the Agency lacks a risk communication framework, although work has begun on one. Even without the framework, the Agency has undertaken a number of initiatives to improve communication. However, we found instances (discussed below and in the previous sections on the non-federally registered sector and on the HACCP-based approach) in which the Agency did not maintain sufficient dialogue with stakeholders, particularly Parliament and the public.

The Agency's corporate business plan and annual report fall short of expectations

25.142   The *Canadian Food Inspection Agency Act* requires the Agency to produce a corporate business plan and an annual report. These accountability requirements were included in the Act because of the greater financial, human resource and contracting freedoms given to the Agency. These requirements recognize that the Agency must consider stakeholder concerns when it makes key decisions.

25.143   The publication of the corporate business plan gives the Agency an opportunity to present its strategic direction. The Act requires that the plan include objectives, strategies to achieve its objectives, and expected performance against these objectives. The 1997–2000 plan contains no clearly stated, concrete performance expectations, and only limited information on milestones, time frames, expected levels of effort, and measures of goal achievement. In our view, the information in this plan is not adequate to allow Parliament and the public to later judge how well the Agency actually performed.

25.144   The Act also requires that the annual report include an assessment by the Auditor General of the fairness and reliability of the information that it contains. In our latest assessment, we found that the performance information in the annual report does not yet provide readers with the information necessary to understand the extent to which the Agency is achieving its objectives.

25.145   In our annual assessments, we have found that progress toward good performance reporting has been slow, and targets have been repeatedly missed. For example, the Agency made a commitment in its 1997–98 annual report to develop its performance management and reporting system within three years. A year later, the

In our annual assessment of the Agency's Performance Report, we found that progress toward good performance reporting has been slow and targets have been repeatedly missed.

Agency said that it would need at least four to five years. Current internal plans indicate a delay of a further year to complete this project. We did find, however, that the Agency has begun to develop a new performance management framework, which it believes will significantly improve future performance reports. Although this initiative is a move in the right direction, the Agency agrees that much more work needs to be done. In our view, the Agency will require considerable effort to provide the type of performance reporting anticipated in the *Canadian Food Inspection Agency Act.*

25.146 Stakeholder consultation is another means to consider stakeholder concerns in making management decisions. The Agency prides itself on its approach of consulting with industry and other stakeholders to obtain their feedback on and support for its plans. We reviewed a number of key management decisions to assess the extent of consultation with stakeholders, including staff, industry, the provinces and the public (see Exhibit 25.15). Our review indicates that the Agency's approach to consultation is not as extensive as it could be.

The Agency has undertaken a number of initiatives to improve communication

25.147 While the Agency has not consistently used the corporate business plan, the annual report and stakeholder consultation to engage the public and Parliament, it has undertaken a number of initiatives to communicate with the public and consider stakeholder concerns in making management decisions. For example, we noted that the Agency has done the following:

Exhibit 25.15

Extent of Stakeholder Consultation in the Agency's Key Management Decisions

Management Decisions	Has the Agency communicated with			
	Its staff?	**Industry?**	**The provinces?**	**The public?**
Legislative and regulatory changes (*Canadian Food Inspection Agency Act*, Bill C–80 – *Canada Food Safety and Inspection Act*, cost recovery)	Yes	Yes	Yes	Yes
1997 corporate business plan	Yes	Yes	Yes	Yes
Integrated Inspection System	Yes	Yes	On some issues	Not since the 1997 corporate business plan
Implementation of the HACCP-based approach	Yes	Yes	Yes	On some issues
Change in focus in non-federally registered sector	Yes	No, but some consultation is planned	No, but some consultation is planned	No
Cross program risk-based resourcing	Yes	Not since the 1997 corporate business plan	Not since the 1997 corporate business plan	Not since the 1997 corporate business plan
Updated corporate business plan	Yes	Limited	Not since the 1997 corporate business plan	Limited

Source: CFIA documents and other sources

- consulted extensively to develop its first corporate business plan;

- has continued to consult extensively in other areas, such as legislative and regulatory change, in accordance with the Treasury Board's Regulatory Policy;

- has continued to improve its Web site;

- developed a Memorandum of Understanding with the Health Policy and Communications Branch of Health Canada to improve delivery of communication services and activities;

- launched the "FightBac" campaign to improve consumer awareness of risks to food safety; and

- drafted a risk analysis framework, in keeping with modern risk communication practices.

The approach to communication with stakeholders needs to be improved

25.148 In our audit, we noted other tendencies that suggest that the Agency could be a more transparent organization, particularly for the public.

- We compared the Web sites of the Agency and Health Canada with those of the U.S. Department of Agriculture and Food and Drug Administration. The U.S. Web sites have more information on risks to food safety, such as risk assessments, compliance actions not involving prosecution, reports on the implementation of the HACCP-based approach and the results of national baseline surveys.

- Key advisory mechanisms draw heavily from industry. Among the members of the Ministerial Advisory Board, there are eight industry representatives, three academics, and one consumer representative. The Agency's "Group of Thirty" key stakeholders includes 30 industry groups, seven

academic and professional groups and one consumer group.

- The Agency's new communication strategy envisions only one-way communication with its external stakeholders and does not lay out a framework for two-way dialogue.

- The Agency does not keep executive committee minutes.

- The Agency does not document the advice on scientific issues from the Associate Vice-President, Science Evaluation to the President.

25.149 The safety of food is important to all concerned, from producers to consumers. And the consequences of consuming unsafe food can be significant. Further, many players are responsible for contributing to food safety. For these reasons, it is important that the Agency operate as a more transparent organization by involving all those who have a stake in safe food.

25.150 The Canadian Food Inspection Agency should develop and implement an overall risk communication framework that would engage all stakeholders, as appropriate, in key management decisions. The Agency should establish clear and concrete performance expectations for the corporate business plan and all its initiatives. The Agency should also promptly develop and implement performance reporting systems that will enable it to provide the type of performance information anticipated in the *Canadian Food Inspection Agency Act*.

Agency's response: The CFIA, as a government agency that manages risks on a day-to-day basis, engages in two-way communication with all its stakeholders. Stakeholder consultations are an integral part of the CFIA's services. The CFIA is preparing to implement a risk communication framework that espouses internationally agreed-upon principles of

risk communication. By adopting the most current principles of risk communication, the CFIA will enhance its ability to ascertain the most effective and appropriate ways of communicating risk.

We recognize the importance of two-way communication between a wide range of stakeholders. The CFIA engages in two-way communications through its media relations, Web site, and enquiries functions. The CFIA is working to enhance its consultation and outreach approach to encompass as wide a target audience as possible, including consumers and public health stakeholders.

Preliminary performance expectations have been developed and are articulated in the recent business plan update. The CFIA agrees that further work is required in developing performance targets. The ongoing development of the performance management framework will provide the foundation for establishing performance targets.

The CFIA reports performance information according to Treasury Board guidelines in the Annual Report and the Agency Performance Report. An updated Planning, Reporting and Accountability Structure (PRAS), approved by Treasury Board in September 2000, defines the performance reporting framework at the corporate level.

A quarterly review process, designed to strengthen performance reporting, is being piloted in the CFIA. As noted previously, the reporting systems are being further developed and implemented throughout the CFIA.

Corporate Capacity

The Agency's corporate capacity continues to develop

25.151 While we did not audit the overall management capacity of the Agency, we observed a number of areas where the organization is still developing and that have influenced the rate of progress on initiatives. The Agency is aware of these issues and is acting on most of them. For example:

- When it was created, the Agency had to integrate 157 information systems and improve the Year-2000 compliance of its systems. The integration of these systems into 17 Year-2000 compliant systems involved significant effort by the Agency. However, a number of mission critical systems are still not fully operational, including the Multi-Commodity Activities Program, the Laboratory Sample Tracking System and the Import Control System.

- The Agency still needs to develop a corporate strategy for risk management in order to be in compliance with the Treasury Board's policy. This strategy would help the Agency anticipate and cope with risks that affect the achievement of its mission.

- Because of the major reorganization in 1998, there was a loss of continuity in specific management positions, bringing challenges to maintaining corporate memory.

- An internal study identified little confidence in records management.

- The Agency does not routinely include financial analysis in its analysis of initiatives.

Conclusion

25.152 The Agency's food inspection programs are reviewed and generally well regarded by most foreign countries that import our products. This feedback provides a degree of assurance that the Agency's programs are contributing to the safety of the food supply.

25.153 The creation of the Agency and its first corporate business plan set expectations for improvements in food safety. The Agency has undertaken a number of initiatives to achieve its mandate of managing an efficient and

effective food inspection system. We found that progress on these initiatives has been varied, and in some cases, has faltered. Our audit work identifies a number of areas where the Agency needs to address important issues to ensure that its programs are satisfactorily designed, structured, organized and implemented.

25.154 In our review of 21 inspection files, we identified many instances where compliance actions were inadequate to secure the timely correction of compliance problems because of limitations in legislation or insufficient action by inspectors. While conclusions on the compliance activities in general cannot be drawn from this sample, we are concerned that a number of the problems had remained uncorrected for many months and in some cases, years.

25.155 Measuring the success of initiatives, and more broadly, the performance of the Agency in achieving its goals is also a concern. The Agency has not set expectations and has only developed limited performance measures to determine whether its initiatives and activities have contributed to a more efficient and effective food inspection system. Our annual assessment of the performance information in the Agency's annual report has consistently noted that readers are not provided with the information necessary to understand the extent to which the Agency is achieving its objectives.

25.156 The Agency is lacking important information about hazards in the food supply and the impacts on humans to make management decisions. This is complicated by the fact that the Agency must rely on others for some of this information.

25.157 The Agency has missed opportunities for broad public debate on key strategic questions, including the following: How much inspection attention should be paid to the non-federally registered sector given its mandate? Should the Agency continue to provide industry with considerable flexibility in implementing the HACCP-based approach? Should it be leading internationally in implementing the further redesign of the HACCP-based approach in the meat industry? It is important that the Agency engage stakeholders, including Parliamentarians and the public, in a debate on these questions.

About the Audit

Objectives

The audit's objectives were the following:

- to assess whether the Agency's inspection regimes have been satisfactorily designed, structured, organized and implemented to achieve their safety and other objectives;

- to identify factors and constraints that affect the development or implementation of the inspection regimes; and

- to determine whether the Agency is proceeding adequately with initiatives to improve its management of risks to food safety relative to its mandate for food inspection.

Scope

Our audit assessed the regulatory regimes and food inspection programs that the Agency uses to discharge its responsibilities for safe food and consumer protection. We examined a number of its strategic initiatives for managing the risks to food safety:

- Integrated Inspection System

- risk-based resourcing

- imported commodities

- non-federally registered establishments

- implementation of the HACCP-based approach

- compliance and enforcement activities

- human resource management.

In addition, we also assessed three factors that we believe influence the success of these initiatives:

- information for management decisions and measuring performance

- risk communication framework

- corporate capacity.

Approach

We interviewed staff at the Agency's headquarters in Ottawa, in regional offices and on site at processing establishments. We spoke to management in a number of processing establishments. We obtained and reviewed documentation, including legislation, regulations, corporate documents, policies and procedures manuals, inspection files, minutes of meetings, planning documents, studies, audits and information from Web sites. We also interviewed the staff of provincial food inspection programs and at the United States Department of Agriculture and Food and Drug Administration.

To assess the adequacy and consistency of compliance activities, we reviewed the inspection files for 21 establishments (six non-federally registered establishments and 15 federally registered establishments). We chose at least one file from each of the Agency's four geographical areas (Atlantic, Quebec, Ontario, West). Nine involved prosecutions during the latter half of 1999, and 12 had issued recalls at some time between June 1998 and March 2000.

Criteria

We drew our audit criteria from the Agency's legislation and regulations, performance report, annual report and corporate business plan; expectations developed by the General Accounting Office in audits of the U.S. food safety system; work of the Canadian Food Inspection System Implementation Group; and prior and current work of our Office. The criteria were designed to examine issues identified in our Report, Chapter 24, Federal Health and Safety Regulatory Programs.

We expected that the Agency would have done the following:

- analyzed alternative regulatory regimes;

- developed clear policies and procedures for resolving complaints;

- set up effective departmental accountability and review structures that are consistent with its regulatory approach;

- prepared clear statements of guiding ethical principles and conflict-of-interest policies;

- developed clear policies for the establishment of cost-recovery fees;

- established clear, accurate, comprehensive and timely reporting to management and Parliament;

- identified and prioritized risks to food safety and incorporated these risks in its decision-making process; and

- designed and delivered food inspection programs to protect against risks to food safety.

More specific expectations are presented in each section of this chapter.

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