

PERFORMANCE AUDIT REPORT

Assessing Whether State Regulation of Meat Processing Plants is More Stringent and Costly than Federal Regulations Require

**A Report to the Legislative Post Audit Committee
By the Legislative Division of Post Audit
State of Kansas
March 1998**

Legislative Post Audit Committee

Legislative Division of Post Audit

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March 10, 1998

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This report contains the findings, conclusions, and recommendations from our completed performance audit, *Assessing Whether State Regulation of Meat Processing Plants Is More Stringent and Costly Than Federal Regulations Require*.

The report includes a number of recommendations for improving the Meat and Poultry Inspection Program. We recommend that the Department encourage plant owners to obtain training in Hazard Analysis and Critical Control Point (HACCP) systems as soon as possible. We also recommend that the Department take steps to ensure that notices of regulatory changes are provided to inspectors before they are provided to plant owners. Finally, to ensure that State meat and poultry inspectors are enforcing State regulations as consistently and fairly as possible, we recommend that the Department provide standardized training for all its inspectors and find out from plant owners what specific types of differences they think exist between inspectors, or from one region of the State to another.

We would be happy to discuss these recommendations or any other items in the report with any legislative committees, individual legislators, or other State officials.

Barbara J. Hinton
Legislative Post Auditor

EXECUTIVE SUMMARY
LEGISLATIVE DIVISION OF POST AUDIT

Question 1: What Do Meat Processing Plants Have To Do Under New Federal Laws and Regulations Relating to Food Safety Requirements, And How Is This Information Being Communicated to Them?

The new federal regulations adopted in July 1996 require meat processing plants to do less than the draft regulations initially proposed in 1995. page 4
In 1993, four children died and more than 500 people became sick from an outbreak of a particular strain of E. coli. In response, the federal Food Safety Inspection Service decided to revamp its inspection program. After receiving nearly 7,000 written comments in response to the proposed regulations issued in 1995, the Inspection Service dropped two of the proposed requirements that would have had a significant cost impact on plants—time and temperature requirements and antimicrobial treatments for carcasses. Ultimately, the final regulations were less stringent on meat and poultry plants than the proposed regulations, and appeared to take small plants' concerns into account. The final regulations adopted at the State level required plant owners to implement sanitary operating procedures and testing requirements by September 1997, and will require them to develop food safety systems by January 2000.

A number of factors contributed to some anxiety and uncertainty about implementing the new requirements for State-inspected meat and poultry plants. page 7
To maintain its own meat and poultry inspection program, Kansas must impose and enforce requirements that are at least equal to federal requirements. The House Agriculture Committee received conflicting testimony about the impact the new requirements could have on small meat plants in Kansas. In 1997 and again in 1998, the Department of Commerce and Housing estimated the new requirements would cost Kansas' State- and federally inspected plants \$25,000-\$200,000 to implement, and would cause 20%-30% of all State-inspected plants to close or convert their operations to custom slaughter plants. However, an official with the Food Safety Inspection Service testified the new requirements shouldn't have a significant impact on meat plant operators' costs, or on their ability to stay in business.

We found the Department of Commerce and Housing's cost estimates weren't reliable because Department employees hadn't read the regulations and weren't sure whether their estimates were based on the final or proposed regulations. page 8
In addition, the Department's high-end cost estimate was based on a loan amount for three steam pasteurization units that aren't required by the new federal regulations.

Other factors that contributed to the anxiety included multiple changes to the implementation dates at the State level, and meat inspectors' inability to answer plant owners' basic questions about some of the new requirements. page 9

It's hard to know exactly how the new Hazard Analysis and Critical Control Point (HACCP) requirement will affect small meat plants page 10

in Kansas. *This is the last of the four programs called for by the new regulations, but it seems to have the most concern and costs associated with it. Small, State-inspected plants must have HACCP systems in place by January 25, 2000. We found that it's difficult to project what it will cost to develop and implement HACCP plans in State-inspected plants. Two costs estimates we reviewed suggested those costs could range from \$2,000 per HACCP plan to a minimum of \$6,000 for implementing a HACCP system, but these cost estimates were for plants much larger than the typical Kansas State-inspected plant.*

In our survey of State-inspected plants, we asked plant owners to provide cost estimates for items that might be HACCP-related. Most owners thought they would incur employee-related costs of up to \$2000, and their plant structure and equipment costs would be more than \$5,000. Owners who'd had HACCP training provided lower cost estimates in the training category and higher cost estimates for plant structure and equipment costs. page 12

In addition, we found it's equally difficult to predict whether the requirement for implementing HACCP plans will drive any plants out of business. Of the 75 plant owners who responded to our survey, 15 (or 20%) thought the new regulations would force them out of business. However, 12 of these 15 owners hadn't had HACCP training, and we'd expect owners who've been through training to have a better understanding of how the new regulations may affect their plants. Officials with the Department, the federal Inspection Service, the Kansas Meat Processors Association, and Kansas State University all agreed that it will be difficult to predict whether a plant will go out of business because of the new regulations. page 13

Most plant owners indicated they generally were satisfied with the fairness of their inspectors, but some expressed concerns about inspections being inconsistent across state regions. page 13
While we didn't conduct a complete review of the Department's inspection system, we did survey State-inspected plants to help determine whether inspectors were conducting fair and consistent inspections. Two of every three plant owners who responded to our survey thought inspections were fair and consistent, and the majority of written comments about inspectors said they were doing a good job. Plant owners who disagreed with this assessment said some inspectors weren't consistently enforcing regulations. Department officials acknowledged that inspectors don't always interpret regulations exactly the same way, and said they were trying to ensure that inspectors receive the same level of training.

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Question 2: Has Kansas Adopted More Stringent Requirements for Meat Processing Plants Than Those Imposed by the Federal Government, and if so, What is the Additional Cost of Those Requirements?

Kansas hasn't adopted more stringent requirements than those imposed by the federal government. *Kansas has adopted the new federal regulations dealing with Pathogen Reduction and Hazard Analysis Critical Control Point (HACCP) systems. As a result, there weren't any additional costs to compute.* page 18

Even though state-inspected plants have to implement state requirements that are equal to federal requirements, those state-inspected plants can't sell meat in interstate commerce like federally inspected plants can. *Federal laws prohibit state-inspected plants from shipping their meat and poultry products across state lines. This restriction is a source of much frustration for state inspection programs and the plants under their supervision. Federally inspected plants and their trade associations still list product safety as the main reason they want the ban to continue. However, Kansas State University officials, the Department, and some trade associations told us product safety should no longer be an issue with the implementation of the new regulations. A recent proposal by the U.S. Department of Agriculture may start the process to eliminate the ban on interstate commerce for state-inspected plants. Federal officials proposed eliminating the ban on interstate commerce on January 26, 2001—exactly one year after small plants must implement the last of the new federal regulations.* page 18

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APPENDIX A: Summary of Survey Responses page 21

APPENDIX B: Agency Responses page 24

This audit was conducted by Laurel Murdie and John McIntyre of the Division's staff. Randy Tongier was the audit manager. If you need any additional information about the audit's findings, please contact Ms. Murdie at the Division's offices. Our address is: Legislative Division of Post Audit, 800 SW Jackson Street, Suite 1200, Topeka, Kansas 66612. You also may call (785) 296-3792, or contact us via the Internet at: LPA@mail.ksleg.state.ks.us.

Assessing Whether State Regulation of Meat Processing Plants Is More Stringent and Costly than Federal Regulations Require

In 1996, the U.S. Department of Agriculture's Food Safety and Inspection Service issued final regulations relating to meat and poultry production and inspection. Among other things, these new regulations address sanitary operating procedures, sampling and testing requirements, and food safety systems. According to material provided by the Inspection Service, these final rules took into consideration many of the concerns raised by small meat processors in response to draft regulations published in 1995. The final rules supposedly would minimize the impact on small businesses by reducing the regulations' economic burden on them, and by giving small plants more time, training, and assistance in implementing the rules.

Legislative concerns have been raised that there's still a lot of confusion about what small meat processing plants will be required to do to comply with the new rules, and about how much it might cost them. Apparently, officials in the federal Inspection Service have indicated that small plants' costs under the new rules would be minimal, while some State officials have indicated that implementation costs could run as high as \$25,000 to \$200,000 per plant.

Other concerns focus on whether the new federal requirements are scientifically based, on whether the State will be imposing more stringent standards on meat plants than the federal regulations require, and on whether meat plant operators think State inspectors are conducting fair and consistent inspections. In a broad sense, the concerns are that the new rules may drive a significant number of smaller plants out of business.

To address these concerns, this performance audit answers the following questions:

- 1. What do meat processing plants have to do under new federal laws and regulations relating to food safety requirements, and how has this information been communicated to them?**
- 2. Has Kansas adopted more stringent requirements for meat processing plants than those imposed by the federal government, and if so, what's the additional cost of those requirements?**

To answer these questions, we reviewed both State and federal regulations, interviewed staff of federal and State agencies that provided information about the new requirements, reviewed applicable documents, interviewed a sample of meat plant owners, visited a sample of meat processing plants, and surveyed all State-inspected plants in Kansas.

In conducting this audit, we followed all applicable government auditing standards set forth by the U.S. General Accounting Office. Our findings begin on page four after a brief overview of the Department of Agriculture's meat inspection program.

Overview of the Department of Agriculture's Meat Inspection Program

Like the early 20th century Upton Sinclair book, *The Jungle*, a series of press exposés in the late 1960s revealed that meat plants across the country were plagued by unsanitary conditions. At the time, these meat plants were inspected by individual state inspection programs that were allowing these unsanitary conditions, and that were hampered by inconsistent standards and regulations.

These exposés prompted the federal government to act. In 1967 and 1968, the Federal Meat Inspection Act and the Poultry Products Inspection Act were passed, providing for greater uniformity in the regulation of products shipped in interstate, intrastate, and foreign commerce. Both Acts extended federal standards to intrastate operations and provided for the state-federal cooperative inspection programs described below.

States That Want to Have Their Own Inspection Program Must Impose and Enforce Requirements That Are At Least Equal To the Requirements in Federal Law

The United States has a total of about 8,800 plants that slaughter and process meat and poultry products. The Food Safety Inspection Service directly inspects approximately 6,200 "federal" plants. These plants account for about 99% of the meat and poultry products produced in this country, and are allowed to trade in interstate commerce. They are governed by regulations issued at the federal level.

State employees inspect the remaining 2,600 meat processing plants through their states' inspection programs. These plants account for less than 1% of the country's meat and poultry production. Currently, 25 states maintain their own inspection programs. The Food Safety Inspection Service reimburses those states for half the costs of their programs.

These State-inspected plants are governed by regulations adopted at the State level. However, those regulations must be at least equal to the requirements in federal law. They can be more stringent than federal requirements, but not less stringent.

Kansas Has Chosen To Administer Its Own Meat-Inspection Program

The Department of Agriculture is responsible for this program. Its Meat and Poultry Section (within the Division of Inspections) conducts plant inspections with a staff of about 55 employees, including inspectors, area supervisors, veterinarians, and administrative staff.

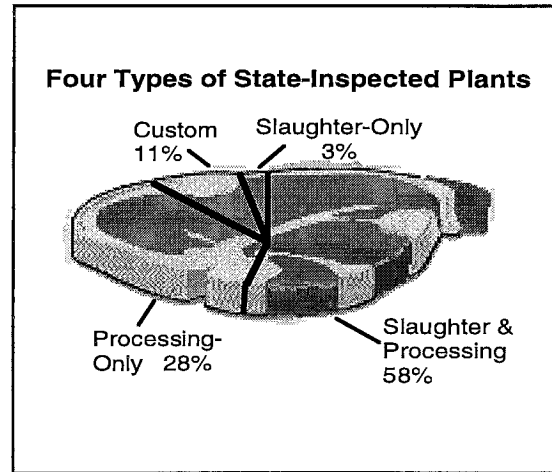
The work is organized into six inspection regions. The map at right shows the number of staff in each region. The program's budget is currently about \$2.5 million a year; the federal government reimburses the State for half those costs.

The Department inspects four types of plants. A description and the number of each type of plant is summarized below.

The Department is responsible for ensuring that State-inspected plants don't sell contaminated meat and poultry products to Kansas consumers. In state-inspected slaughter plants, animals are inspected before and after they are

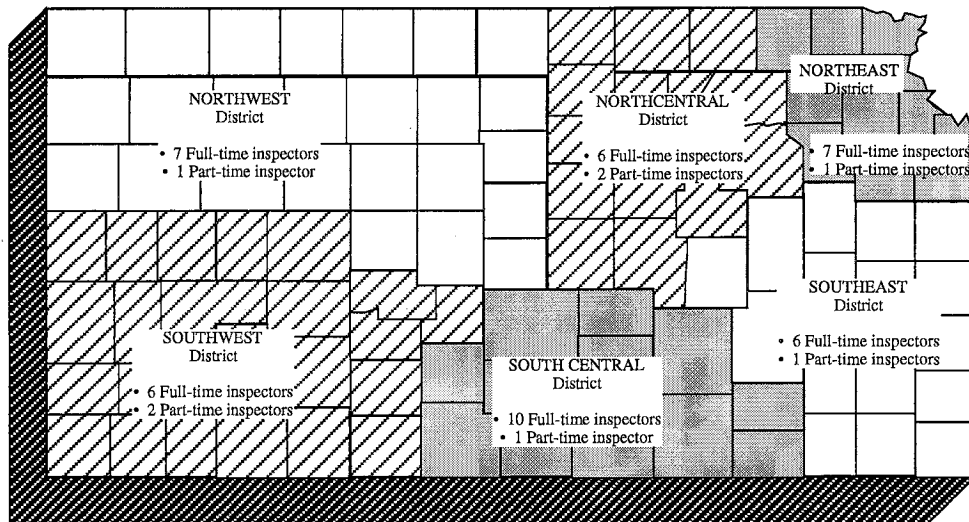
slaughtered. This means an inspector must be on the "kill" floor when animals are being slaughtered to make sure diseased animals aren't processed.

In both slaughter and processing plants, products that pass an inspection are labeled as such and can be sold in intrastate commerce. In addition, inspectors routinely verify that these plants meet sanitation standards in their slaughter and processing areas. Area supervisors and Department veterinarians also perform reviews of each plant to ensure they're meeting standards.



In custom slaughter plants, animals aren't inspected before or after they are slaughtered, and the meat products are labeled "Custom—Not for Sale" because the product is returned to the animal's owner. Custom plants are inspected only to verify that the plant is registered and meets general sanitary conditions, and to ensure meat products aren't contaminated or mislabeled.

Meat and Poultry Inspection Areas



In addition to the positions shown on this map, the Meat Inspection Program has five additional positions with Statewide or multi-district responsibilities: a Program Director, a Veterinarian, two compliance officers, and one administrative staff person.

What Do Meat Processing Plants Have To Do Under New Federal Laws and Regulations Relating to Food Safety Requirements, and How Is This Information Being Communicated to Them?

The new federal regulations adopted in July 1996 require meat processing plants to do less than the draft regulations initially proposed in 1995. The final regulations are less stringent on meat and poultry plant operators, and appeared to take small plants' concerns into account. The final regulations adopted at the State level required plant owners to implement sanitary operating procedures and testing requirements by September 1997, and will require them to develop food safety systems by January 2000.

A number of factors contributed to some anxiety and uncertainty about the new requirements, including inaccurate and conflicting information about the impact of those requirements on small plants in Kansas, uncertainty about implementation dates, and meat inspectors' inability to answer plant owners' basic questions about some of the new requirements.

It's still difficult to know how these new requirements will affect Kansas' small meat plants because there's still one requirement left to implement. Finally, most plant owners we surveyed said they generally were satisfied with the fairness of their inspectors, but some expressed concerns about inspections being inconsistent across State regions or between inspectors. These and other findings are presented in the following sections.

The New Federal Regulations Adopted in July 1996 Require Meat Processing Plants To Do Less Than the Draft Regulations Initially Proposed in 1995

In 1993, four children died and more than 500 people became sick from an outbreak of a particular strain of *E. coli* in the Pacific Northwest. The outbreak was caused by ground beef that had been inspected and approved by the Food Safety Inspection Service, but that had been undercooked at a restaurant. After reviewing several scientific studies on the subject, the Inspection Service decided to make some fundamental changes in its meat and poultry inspection program to improve food safety and reduce the risk of foodborne illnesses in the United States.

The Inspection Service published new draft regulations revamping the inspection program on February 3, 1995. By September 1995, the Inspection Service had received nearly 7,000 written comments in response to those draft regulations. Many of those comments were from smaller processing plants that argued some of the proposed changes would adversely effect them.

After reviewing these comments, the Inspection Service dropped two of the proposed requirements and modified the implementation dates for others. The table

below shows the differences between the draft regulations and the final regulations, and provides a brief explanation of why any changes were made.

**A Comparison of the Proposed and Final Federal Regulations
For Meat and Poultry Processing Plants**

Proposed Regulations	Final Regulations	Why the change (if any)
<p>Sanitary Standard Operating Procedures (SSOPs). The proposed regulations required all but custom plants to develop and implement procedures for ensuring their facilities and equipment were sanitary and wouldn't contaminate their products. Plants also had to document all corrective actions.</p>	<p>Same, no changes. The proposed regulation was widely endorsed by small and large businesses, industry, and consumers.</p>	<p>The implementation date was changed from 90 days after publication of the final to 6 months (January 27, 1997) after publication. Because Kansas had to adopt the federal regulations at the state level, Kansas' State-inspected plants had until September 5, 1997 to implement this program.</p>
<p>Antimicrobial Treatments or Washes for Carcasses. The regulations initially required all slaughter plants to treat animal carcasses with an antimicrobial wash that would reduce the number of bacteria.</p>	<p>This requirement was dropped in the final regulations.</p>	<p>Commenters said mandating antimicrobial washes was inconsistent with the HACCP concept of making plants responsible for designing their own sanitation controls. The Food Safety Inspection Service still hopes plants will use these treatments to meet established performance standards.</p>
<p>Time and Temperature / Carcass Cooling. The proposed regulations required all plants to cool animal carcasses to a certain temperature within a certain amount of time once those carcasses left the slaughter floor. They also had to keep carcasses that cool while they were being transported.</p>	<p>This requirement was dropped in the final regulations.</p>	<p>Again, commenters said mandating cooling times and temperatures was inconsistent with the HACCP concept. The Inspection Service decided the time and temperature combinations were too restrictive, and that proper cooling to prevent growth of pathogens must extend beyond inspected plants.</p>
<p>Salmonella Testing. The Inspection Service proposed to establish standards regarding allowable levels of Salmonella pathogens, and to require plants to test raw products for <i>Salmonella</i></p>	<p>Testing for <i>Salmonella</i> will be done by Department inspectors, not by the plants. However, State-inspected plants were required to test for generic <i>E. coli</i>. Those number of tests must take into account plants' production volume. Performance standards for both <i>E. coli</i> and <i>Salmonella</i> will be established, and plants' test results will be used in determining if the plant has adequate controls.</p>	<p>Pathogen reduction was widely supported, but commenters thought <i>Salmonella</i> testing was less useful than generic <i>E. coli</i> testing. In addition, because Kansas had to adopt the federal regulations at the state level, most of Kansas' State-inspected plants started <i>E. coli</i> testing September 5, 1997.</p>
<p>Hazard Analysis and Critical Control Point (HACCP) systems. The proposed regulations required all plants to identify and document potential hazards in their production processes, and the "critical" areas where these problems might occur. In addition, plants had to establish what actions they'd take to prevent and correct these hazards from affecting their products.</p>	<p>Same, no change to requirements.</p>	<p>Under the proposed regulations, small plants had 36 months to implement HACCP. The final regulations redefined small plants and allowed "very small" plants an additional 6 months to implement HACCP. Very small plants are those with less than \$2.5 million annual sales or less than 10 employees. These plants must implement HACCP by January 25, 2000.</p>

As the table shows, the final regulations were less stringent on meat and poultry plant operators than the earlier draft regulations had been, and appeared to take small plants' concerns into account. Two requirements that could have had a significant cost impact on plants were dropped altogether, and plants no longer were required to conduct the Salmonella tests originally proposed (although Department inspectors will conduct these tests).

Under the final regulations, a new provision was added requiring slaughter plants to conduct generic *E. coli* tests on carcasses, but small, low-volume slaughter plants were allowed to meet this requirement by conducting only 13 *E. coli* samples a year. Larger plants may have to conduct *E. coli* tests more frequently.

The final regulations were published July 25, 1996, and can be summarized into four programs. Those programs are described in more detail in the box below.

**A Summary of What the New Regulations Require of
Small, State-inspected Meat Plants**

Sanitary Standard Operating Procedures (SSOPs): This program has been in place in Kansas plants since September 1997. It was established to ensure that plants had written sanitation programs for their facilities and equipment to prevent direct contamination of meat and poultry products. Specifically, each plant had to develop and implement a plan that described all the procedures it followed daily to clean and sanitize its facility and equipment. This included sanitation procedures it carried out before daily operations started. Plant employees also have to keep daily records and take corrective action to prevent product contamination. For example, before a plant owner starts up operations, he or she may find that the cleaning crew didn't properly clean a meat grinder. The owner would clean the equipment and document on a sanitation record what the problem was and how it was corrected.

Generic *E. coli* testing: Only slaughter plants must test for generic *E. coli*. Testing frequency depends on the plant's production capability. For example, most State-inspected slaughter plants in Kansas will conduct 13 weekly tests. *E. coli* testing is being used to indicate how well the plant's process is controlling sanitation. *E. coli* is the best single microbial indicator for fecal contamination, so positive tests may indicate a problem with sanitation in the slaughter process. Most Kansas slaughter plants were required to start testing for generic *E. coli* by September 1997.

Salmonella testing: Because *Salmonella* is a common cause of foodborne illness associated with meat and poultry products,

the Food Safety Inspection Service will use it to determine whether raw products are being prepared, packed, and held under sanitary conditions. Unlike *E. coli* testing, these tests are conducted by the Department. If test results exceed the national microbiological baseline, the Department will require the plant to change its operations to meet the standard. In January 1998, the Department started testing for this organism in all slaughter plants and in plants producing raw ground products. This testing program will cost the Department about \$5 for each sample (an estimated \$8,000, excluding shipping and handling, for calendar year 1998).

Hazard Analysis and Critical Control Point (HACCP) systems: The deadline for most Kansas plants to develop HACCP "plans" is January 2000. In developing these plans, all plants will be required to identify and document potential hazards in their production processes and the "critical" areas where these problems might occur. In addition, plants will have to establish what actions they'll take to prevent and correct these hazards from affecting their products. Finally, all of this must be documented, in writing, so that Department inspectors can review the plans. Once a plant has implemented this program, the *E. coli* testing program described above will help verify whether the plan is working. This is the only program under the new regulations remaining to be implemented by State-inspected plants. For a more detailed description of Hazard Analysis and Critical Control Point systems, see the profile on page 11.

State-Inspected Plants Generally Are Much Older and Smaller Than Federally Inspected Plants

During this audit, we visited one federally inspected and five State-inspected meat processing plants. We found that State-inspected plants have considerably smaller operations than their federally inspected counterparts.

The federally inspected plant we visited—Iowa Beef Processors in Emporia—has more than 1,400 employees who slaughter and process more than 4,000 head of cattle a day (or 200 an hour). This plant slaughters cattle only and produces boxed beef.

In contrast, the five State-inspected plants we visited—all of which were in small towns—have between 3 and 5 full-time employees each who usually slaughter animals only one or two days a week. In a typical week, they might slaughter 36 animals. These State-inspected plants make a number of different products; one sells over 60 different products ranging from pork sausage to T-bone steaks.

A recent survey by Kansas State University profiled State-inspected plants and their owners. As described below, it confirmed what we saw on our visits:

In general, State-inspected plants...

Were constructed in the mid-1950s, and have been renovated since then.
Slaughter no more than 1,660 head of cattle a year.
Have 10 or fewer employees.

In general, federally inspected plants...

Were constructed in the 1970s.
Slaughter more than 2,500 head of cattle a day (nearly 1 million a year).
Have more than 1,500 employees.

A Number of Factors Have Contributed to Some Anxiety and Uncertainty About Implementing the New Requirements For State-Inspected Meat and Poultry Plants

As noted earlier, Kansas must impose and enforce requirements that are at least equal to the requirements of the Federal Meat Inspection and Poultry Products Inspection Acts to maintain its own meat and poultry inspection program. Thus, when the new federal regulations were adopted, Kansas needed to adopt new State requirements that were at least equal to the new federal ones. Those new requirements could have been adopted by making changes either in State law or in administrative regulations.

Federal regulations initially required all meat and poultry plants to implement new sanitation standard operating procedures by January 1997. Because those new regulations had to go through an adoption process in Kansas, the Department got permission to delay implementing those new operating procedures until July 1997. However, that deadline still meant the new regulations would have to be adopted fairly quickly to give plants enough time to implement them.

The Department hoped to get the new requirements adopted through changes in State law early in the 1997 legislative session. During hearings before the House Agriculture Committee, however, legislators received testimony about the impact these new requirements could have on small meat plants in Kansas. No bill was introduced that session, so the Department eventually got the new State requirements adopted through administrative regulations.

These new administrative regulations became effective September 5, 1997, much later than the Department initially had anticipated. As a result, it changed the dates for implementing sanitary standard operating procedures (again) and for testing for *E. coli* from July 1997 to September 5, 1997.

During this audit, we talked with, visited, or surveyed all 141 State-inspected meat plant operators in Kansas, and interviewed officials from the Department of Agriculture, the federal Food Safety Inspection Service, meat processors' trade associations, and others with an interest in or expertise in this area. (A summary of plant owners' survey responses is in Appendix A.) We also reviewed a variety of relevant records and reports. We noted that some people have expressed considerable anxiety or uncertainty about implementing the new requirements for State-inspected plants. The reasons we identified are summarized below:

- **In testimony before the House Agriculture Committee in 1997 and again in 1998, the Department of Commerce and Housing estimated the new requirements could cost Kansas' State- and federally inspected meat plants \$25,000-\$200,000 to implement, and could cause 20%-30% of all State-inspected plants to close or convert their operations to custom slaughterhouses.** In 1997, representatives of the Department's Agriculture Products Development Division testified that operators' costs could increase significantly because of the training and capital improvements required by the new regulations. They also said they thought the new requirements for developing and implementing Hazard Analysis and Critical Control Point (HACCP, pronounced "hassup") plans would cause many operators to go out of business. The Department of Commerce and Housing presented these same cost estimates to the House Agriculture Committee again during the 1998 legislative session.

The Department of Commerce and Housing's estimates raised concerns about how Kansas' small meat processing plants would fare under these new requirements. The estimates also conflicted with information provided by the Food Safety Inspection Service. During the 1997 Committee hearing, an official with the Inspection Service testified the new requirements shouldn't have a significant impact on meat plant operators' costs, or on their ability to stay in business.

During this audit we reviewed the cost estimates the Department of Commerce and Housing provided, and found those estimates weren't reliable for the following reasons:

- Department employees who prepared and presented the cost estimates hadn't read the federal regulations, and weren't sure whether the cost estimates they had developed were based on the draft regulations or the final regulations. As noted earlier, there were fairly significant differences between the two sets of regulations.
- The Department's high-end cost estimate of \$200,000 was based on a loan amount that had been approved for a plant installing three steam pasteurization units. These units aren't required under the new federal regulations.

—The Department didn't explain that some of these implementation costs would be incurred gradually over time, rather than all at once. For example, the Department's low-end cost estimate of \$25,000, which actually was developed by the U.S. Department of Agriculture, covered a five-year period.

- **The first information some plant owners received about the new regulations came through their trade associations.** As described in the box below, the information they received from these associations generally was accurate, but caused some anxiety because of the viewpoint those associations expressed.
- **Plant owners weren't sure when they had to implement some of the new requirements being imposed on them because the regulations took longer to adopt than anticipated.** As noted earlier, the new implementation dates for sanitation standard operating procedures were changed from January 1997, to July 1997, to September 1997. The implementation date for *E. coli* testing was delayed from July 1997 to September 1997. Department officials told us these date changes convinced some plant operators that the new requirements simply weren't going to happen.
- **The Department didn't always inform its inspectors in advance about the new implementation dates.** Department inspectors told us plant owners often knew more about when they had to implement the new regulations than they did, because inspectors sometimes didn't receive their copies of letters explaining the changes until a week or more after the plant owners received

Many Plant Owners Get Information About How New Regulations Will Affect Them from Their Trade Associations

The American Association of Meat Processors is a national trade association representing mostly small plants. It has approximately 53 Kansas plant owners as members. The Association publishes a newsletter twice a month and regularly provides updates on proposed and final regulations. This newsletter usually goes out to small meat processors before the Department of Agriculture sends out information on regulatory changes.

Our review showed that the information the Association published on the new federal regulations generally was accurate, but did reflect the Association's position on the need for or validity of the new regulations. Some of the opinions expressed in the newsletter apparently can cause apprehension among some Kansas plant owners. One plant owner told us, "When I read this stuff, I get scared about what the inspectors can do to me." The owner was referring to a recent article that said inspectors had "unchecked power" to shut down a plant. In this case, the article

was referring to something that didn't affect State-inspected plant owners, but that wasn't clear.

Two other groups provide information on new regulations to plant owners: the Kansas Meat Processors Association, and Kansas State University's Extension Service. The Kansas Association mails a monthly newsletter to about 90 Kansas plant owners. Its updates generally are taken from the American Association's publications. The KSU Extension Service mails the Meat Processing News once or twice a year to all Kansas plant owners. Although this information appeared to be accurate, it's published infrequently

Plant owners we talked with said they take information from their associations "with a grain of salt." One plant owner told us, "I don't always take what they (trade associations) say as gospel, but it's hard to ignore if that is all you're hearing."

them. In one instance, an inspector tried to enforce the new requirements during an inspection visit until the plant owner showed him a copy of a letter delaying the implementation date.

- **Department inspectors weren't able to answer many plant operators' basic questions about the new HACCP requirements because those inspectors hadn't received advance training about them.** Initially the Department decided not to train its inspectors in the new HACCP system because it didn't want plant owners to depend on its inspectors to help them develop those systems. As a result, inspectors apparently haven't been able to answer many plant operators' questions about the HACCP system and what it would require. A number of plant owners we surveyed noted that Department inspectors lacked even the most basic knowledge about HACCP systems.

It's Hard to Know Exactly How the New HACCP Requirement Will Affect Small Meat Plants in Kansas

Three of the four programs called for by the new regulations already have been implemented. Only one requirement remains—implementing the new HACCP system. All small, State-inspected plants with less than \$2.5 million in gross annual sales and fewer than 10 employees will have to have this system in place by January 25, 2000. Although this is the last program to be implemented, it seems to have the most concern associated with it. HACCP is summarized on page 11.

To help us determine what affect this requirement may have on small, State-inspected plants, we reviewed and analyzed information from our surveys and interviews and from a number of cost estimates associated with implementing this program. Our findings are summarized in the following sections.

It's difficult to project what it will cost to develop and implement HACCP plans. As described below, two cost estimates we found suggested the costs could vary from under \$2,000 to more than \$6,000:

- The federal Food Safety Inspection Service estimated that HACCP plans will cost an average of \$2,000 each. However, Kansas State University officials told us that estimate was too high because it was based on a low-volume federally inspected plant that might slaughter 300 animals per day. Kansas' State-inspected plants are much smaller than this.
- Based on responses to a February 1997 survey conducted by the University of Illinois for the American Association of Meat Processors, the minimum actual and estimated costs for implementing HACCP systems would be \$5,800. In all, 68 members of the Association—both State-inspected and federally inspected plant operators—responded to the survey. On average, they said they had incurred or expected to incur 3.7¢ per pound of product to implement and operate HACCP systems the first year. Those costs dropped to 1.8¢ per pound the second year and beyond.

**By January 2000, Meat and Poultry Plants
Will Be Required To Have in Place a
Hazard Analysis Critical Control Point (HACCP) System**

The Hazard Analysis Critical Control Point (HACCP) concept is a systematic, science-based, food-safety system. It's a preventative approach to producing the safest possible meat products for human consumption. This means that potential biological, physical, or chemical food-safety hazards that exist—wherever they originate—are prevented, eliminated, or reduced.

HACCP began in 1959 when the Pillsbury Company worked with NASA and other federal agencies on food safety for the space program. Among other things, NASA officials wanted absolute assurance that no toxins were in the food, because a case of food poisoning would be impossible to treat in outer space. Realizing its quality control system couldn't provide that absolute assurance, Pillsbury developed a new system that would give the company complete control over its food-production process, raw materials, and workers.

In 1971, this system was first presented to the public at the National Conference of Food Protection. After it was published in a report in 1985 by the National Academy of Sciences, the concept received more recognition as a food-safety concept. On July 25, 1996, the U.S. Department of Agriculture's Food Safety and Inspection Service mandated the HACCP concept in an effort reduce the incidence of foodborne illnesses from eating meat and poultry products. As a result, all inspected meat and poultry plants must develop and implement HACCP plans.

Before a HACCP plan can be developed, a committed management team needs to be assembled. This should include people who are actually involved in making products, as well as management and any quality-control employees. Because a HACCP team will not be able to prepare a hazard analysis on all products at one time, a priority system to determine which products pose the greatest food safety risk needs to be established. HACCP contains seven principles, which must be used to develop a plan for each product at a plant processes. Those principles are as follows:

1. The team must develop a flow chart describing the manufacturing process for each product that's produced. From this flow chart, the team identifies potential biological, physical, and chemical hazards that could occur at each processing point. **This is the hazard analysis.**
2. Based on the potential hazards noted above, the team identifies **critical control points** where steps could be taken to prevent, eliminate, or reduce food safety hazards. Examples of control techniques can include maintaining certain temperatures during processes, controlling the time it takes to process a meat or poultry product outside refrigeration, and managing moisture content.
3. For each critical control point identified, the team must define acceptable ranges or limits. For example, if a product is heated while it's being processed, the acceptable length of time that product must stay at a specific internal temperature would be specified as the critical limit.
4. The team establishes monitoring requirements for each critical control point to determine whether the plant is adhering to its ranges or limits. For example, a thermometer would be needed to monitor product temperature if the critical limit is internal temperature.
5. If the critical limit isn't met, the team must fix the problem. For example, if a product wasn't processed long enough at a specific temperature—in other words, the critical limit (temperature) wasn't met—the team may need to destroy the product.
6. Plants are required to have written HACCP plans, including all decision-making documents and supporting documentation used in developing each plan. Inspectors and plants review the records for a HACCP plan before the product is shipped to make sure that plan was followed.
7. The team must build long-term verification procedures into each HACCP plan. The plan may need to be changed if ingredients, processing procedures, or equipment are changed. This may require selecting or changing the critical control points to control a processing step, if necessary.

In our survey of State-inspected plants, we also asked owners how the new regulations would affect their businesses. According to survey respondents:

- 83%** said they will spend extra time documenting the steps taken to prevent food safety hazards
- 73%** said they would incur extra costs for microbiological sampling and testing
- 72%** said they will spend extra time and costs for training and hiring employees
- 61%** said they will incur extra costs for new equipment, such as, new computers or cooling units

We also asked plant owners to estimate any additional costs they expected to incur, within general ranges. In all, 51 of the 75 owners who responded to the survey provided an estimate of the cost for items that might be HACCP-related—either employee training and labor costs, or plant structure and equipment costs. (41 owners provided estimates for each cost category, but the same plant owners didn't necessarily respond to both categories.) Their responses are summarized below.

Plant owners' Estimated costs for employee training and labor costs		Plant owners' Estimated costs for plant structure and equipment costs	
no costs	7%	no costs	10%
Up to \$2,000	64%	Up to \$5,000	27%
More than \$2,000	29%	\$5,000-\$10,000	27%
		more than \$10,000	36%

As the table shows, most plant owners thought their employee-related costs would be up to \$2,000, and that their plant-related costs would be more than \$5,000. Because we thought there might be significant differences between owners who'd been through HACCP training and those who hadn't, we analyzed their responses separately. The following table shows the result of that analysis.

	Plant owners who've had HACCP training	Plant owners who haven't had HACCP training
Estimated costs for employee training and labor costs		
no costs	0%	12%
up to \$2,000	80%	54%
more than \$2,000	20%	34%
Estimated costs for plant structure and equipment costs		
no costs	0%	14%
up to \$5,000	8%	34%
\$5,000-\$10,000	50%	17%
more than \$10,000	42%	35%

Looking at the responses this way, the employee-related cost estimates from owners who'd had training were lower, while the plant-related cost estimates from owners who'd had training generally were higher. We generally would expect owners who've been through training to have a better handle on what their potential costs might be.

It's equally difficult to predict whether the requirement for implementing HACCP plans will drive any plants out of business. We also asked plant owners we surveyed whether they thought the new regulations would cause them to go out of business. In all, 15 of 75 respondents (20%) said they would be forced out of business. Of these 15 owners, however, 12 hadn't yet been through the HACCP training. Again, we'd expect owners who've been through the training to have a better understanding of how the requirements may affect their plants. Interestingly, one plant owner told us implementing the new requirements was a "matter of attitude," and if a plant owner decided he or she didn't like the new requirements, the plant would go out of business.

We also talked with officials from the Department of Agriculture, the Food Safety Inspection Service, the Kansas Meat Processors Association, and Kansas State University about this issue. All agreed it would be difficult to predict whether a plant will go out of business because of the new regulations. In general, they told us there were a number of issues to consider before concluding that the new regulations will "force" a plant to close or change its inspection status, including the following:

- Many plant owners are close to retirement age and simply may not want to hassle with implementing the new requirements.
- A plant may change its inspection status from State-inspected to custom because most of the plant's business is custom slaughter anyway.
- Some infrastructure costs may not be caused by the new requirements. Some plants already may have decided to expand their plant's physical structure because business is good. In addition, some plants may need to replace equipment or facilities because the condition of their existing plant is so poor.
- Most plants haven't had training on the new HACCP requirements, and won't know what the related implementation costs would be.

Most Plant Owners Indicated They Generally Were Satisfied with The Fairness of Their Inspectors, but Some Expressed Concerns About Inspections Being Inconsistent Across State Regions

Concerns were raised before this audit started that Department inspectors weren't conducting fair and consistent inspections and were sometimes overzealous, targeting certain plant owners. To help determine whether such problems were occurring, we surveyed State-inspected plants, interviewed the Department's inspection supervisors, and visited with owners at four plants about this issue.

We also reviewed the Food Safety Inspection Service's 1995 review of Kansas' meat inspection programs. Such reviews are conducted to ensure that states are operating at least equal to federal requirements. This report ranked Kansas' program in the bottom third of all state-inspected programs, and cited serious problems in such areas as insufficient inspection staffing levels, and inspection requirements not being enforced. An evaluation of the Department's inspection program wasn't within the scope of this audit, but we have provided some additional information about this report, and about the Department's actions in response, on page 14.

The Department's Inspection Program Has Been Ranked in the Bottom Third of State Inspection Programs by the Federal Food Safety Inspection Service

The Inspection Service reviews state inspection programs to ensure that they're operating at least equal to the federal requirements. The Inspection Service's Spring 1995 review of Kansas' program ranked the Department in the bottom third of all state inspection programs. The Department received a Category III ranking, out of a range of I-IV. If a program receives a Category IV ranking, the federal government takes it over because the deficiencies are so serious the program no longer meets the required "equal to" status.

Department officials told us the Inspection Service considered their program to be "bare bones." Specifically, the federal review team found that inspection staff levels were inadequate to cover the 151 plants in existence at that time. (At the time, there were 36 full-time and 11 part-time inspectors, and 2 field veterinarians.) In addition, the team reviewed seven plants and found two to be unacceptable because inspection requirements hadn't been enforced. Department officials told us these deficiencies made the Inspection Service question the Department's ability to carry out comprehensive inspections.

To address these deficiencies and improve the program's ranking, the Department's

Secretary asked for a peer review. The peer review was conducted in June 1997 by a team of four officials from other state inspection programs and two from the federal Inspection Service. Among other things, the review team found that inspectors needed training in identifying sanitary deficiencies. Because the team also saw inspectors performing plant functions, they recommended training for both inspection supervisors and inspectors so they'd understand they were part of the Department's regulatory team, not the plants' teams. In addition, the peer review team generally observed that there appeared to be a lack of enforcement. For example, plants weren't being told that contaminated products must be destroyed if compliance wasn't achieved.

To improve the quality of the program and to correct the problems noted in both reviews, the Department is hiring a training officer for inspection staff and plans to add another full-time field veterinarian. The Department also plans to replace the 11 part-time inspection staff with 4.5 full-time-equivalent inspectors. In addition, inspection staff received training in basic sanitation requirements in February 1998.

The Food Safety Inspection Service is scheduled to rank the Department's meat-inspection program again in August 1998.

Two of every three plant owners who responded to our survey about this issue said they thought inspections were fair and consistent. In addition, the majority of plant owners who contributed written comments about inspectors said they were doing a good job. Some of their comments are summarized below:

"We have absolutely no complaints about the State inspectors..."

"Can't speak for other plants, but inspections has been fair in my plant..."

"I think you (Kansas Department of Agriculture) are doing a very good job!"

Plant owners who disagreed said some inspectors weren't consistently enforcing regulations. Most also commented on what they saw as the apparent difference between enforcement in the western and eastern half of the State, with the western half being more strictly regulated. A few of their comments are listed below:

"Our inspector needs to use some common sense... We definitely need uniform inspections; what's good in some areas should be good in all areas."

"There is no even playing field throughout the state...inconsistencies in inspection procedures in different regions."

"Inspectors' attitudes totally depend on how large of kill day you have! If it is big, you're going to have problems."

"There has been a very real difference in the strictness of inspection between the eastern area and the western area. There also seems to be some inequality between plants in the same area."

Most plant owners we visited also had no problems with their current inspector or area supervisor, but some said that they were concerned about inconsistencies between inspectors. Department officials told us some plants may have two or three inspectors in a plant at different times during the week because of staff shortages or sick leave. For example, one plant owner told us:

"I don't have any major problems with my inspectors, but since I have more than one they don't always agree on what's a problem and what isn't."

Department officials told us they try to ensure that inspectors receive the same level of training, and they've taken actions in other areas to try to address potential deficiencies involving their inspection staff. New inspectors receive basic training in all regulatory requirements when they are first hired. However, Department officials acknowledged that inspectors don't interpret regulations exactly the same way. The Program Director told us inspectors with a lot of experience tend to rely on institutional memory and experience, while those with less experience tend to rely on technical expertise. He said this could lead to different interpretations on how to address a problem.

During testimony before the Joint Committee on Economic Development in November 1997, Department officials also said that they'd assigned an inspector to cover different plants because of a personality conflict between this inspector and a plant owner. (The profile below provides additional information about this transfer.)

Finally, the Department's initial decision not to provide its inspectors with training on the new HACCP system (as described earlier in this report) has contributed to some plant owners' feelings that those inspectors aren't as helpful or as informative as they need to be. That's especially true now, given that about two-thirds of the plant owners haven't had HACCP training and aren't likely to understand what will be required of them in the future.

To help address this problem, the Department has hired a consultant to work directly with plant owners to help them implement HACCP systems. Once a plant owner attends training about HACCP systems, the consultant will work with him or

**The Department Recently Addressed a Plant Owner's Problems
With an Inspector**

One plant owner had expressed concerns to the Department and legislators about the inspector assigned to his plant. The owner said he thought the inspector was unfairly citing his plant for sanitation violations. The owner told legislators this inspector was preventing him from butchering by saying equipment was unsanitary even though it had been in that condition for "40 years."

Department officials reassigned this inspector to cover different plants, although they say his decisions were correct in citing the owner. The Department also said the owner has since made changes in his clean-up procedures that greatly reduced sanitation problems. The plant owner told us he's happy with his current inspector and has no problems with the way he now is being inspected.

her free of charge. The Department also has begun training its inspection staff. The six area supervisors already have been trained, the program director and a veterinarian will attend training in March, and front-line inspectors will get basic training in HACCP systems in April. In addition, the program director and training officer will be attending additional HACCP training offered by the Food Safety Inspection Service, and will be expected to provide similar training to the area supervisors and inspectors.

Conclusion

Recent changes in requirements that Kansas-inspected meat plants must follow have been the source of significant anxiety and uncertainty. As federal regulations were adopted at the State level, conflicting cost estimates and uncertain implementation dates left many unclear about how and when those new requirements might affect the plants. Complying with these new requirements probably will result in some increase in costs, and may have other impacts, but the nature and number of such changes are not likely to be as significant as the Legislature initially was led to believe. It's still difficult to predict the likely impact of the one remaining unimplemented aspect of the new requirements—developing Hazard Analysis and Critical Control Point systems. Nonetheless, training for plant owners in those new requirements will reduce uncertainty and help ensure effective implementation. In addition, while it may not be realistic to expect that a group of inspectors spread over the State would have identical interpretations and viewpoints, further training of those inspectors in both new and existing requirements would help reduce any inconsistencies that may exist.

Recommendations

1. To help make its inspectors an effective source of information to plant owners, the Department of Agriculture should ensure that notices of changes in regulatory requirements are provided to those inspectors before they are provided to plant owners.
2. To help ensure effective implementation of Hazard Analysis and Critical Control Point system requirements, the Department of Agriculture should encourage plant owners to obtain training in those requirements as soon as possible.
3. To help ensure that State meat and poultry inspectors are enforcing State regulations as consistently and fairly as possible, the Department of Agriculture should do the following:
 - a. find out from meat and poultry processing plant owners what specific types of differences they think exist between inspectors, or from one region of the State to another.

- b. provide standardized training for all its inspectors now, and on a periodic basis. As specifically as possible, that training should cover such things as what State regulations require plant owners to do, how those regulations should be interpreted, and what steps inspectors can take to make their inspections more consistent.

**Has Kansas Adopted More Stringent Requirements for
Meat Processing Plants than Those Imposed by
the Federal Government, and If So,
What's the Additional Cost of the Requirements?**

Kansas' requirements for meat plants aren't more stringent than the new federal regulations. The Department of Agriculture has incorporated the new federal regulations by reference into the Kansas Administrative Regulations. As a result, there aren't any "additional" costs for complying with more stringent requirements. In addition, even though Kansas has adopted requirements that are equal to federal ones, State-inspected plants in Kansas and elsewhere can't sell meat in interstate commerce like federally inspected plants can. These and related findings are discussed in more detail in the sections that follow.

**Kansas Hasn't Adopted More Stringent Requirements
Than Those Imposed by the Federal Government**

To maintain its own meat and poultry inspection program, a state must develop and administer an inspection program that imposes requirements at least equal to the sanitation and inspection requirements of the federal Meat Inspection and Poultry Products Inspection Acts. This means states can adopt regulations that are more stringent than federal regulations, but not less stringent.

Kansas has adopted the federal regulations dealing with Pathogen Reduction and Hazard Analysis Critical Control Point (HACCP) systems. The newly adopted regulations became effective September 5, 1997. Because these State regulations aren't more stringent than the new federal regulations, there aren't any additional costs to compute.

In reviewing and comparing Kansas' requirements for State-inspected plants with federal requirements, we did note that Kansas regulations require plant owners to maintain raw meat products at 37° F and frozen meat products at -10° F. In addition, State regulations require plant owners to have thermometers and thermostats inside the refrigerators and freezers to monitor and maintain those temperatures. These State regulations have been in place for more than 10 years, however, and aren't related to the new federal regulations.

**Even Though State-Inspected Plants Have to Implement State
Requirements that Are Equal to Federal Requirements, Those
State-Inspected Plants Can't Sell Meat in Interstate Commerce
Like Federally Inspected Plants Can**

Federal laws prohibit state-inspected plants from shipping their meat and poultry products across state lines. That means only federally inspected plants can participate in interstate commerce. This restriction is a source of considerable frus-

Three Common Themes Emerged in our Survey of State-Inspected Meat Plants

We mailed surveys to all 141 State-inspected meat plants in Kansas. From the 75 returned surveys, three major topics of concern emerged:

The first concern meat processing plant managers and owners expressed was the time and cost the new HACCP requirements would add. Some of their comments:

- “These new regulations will in no way improve products, they will just add to expense, which is too high already; any raise in our prices will drive custom slaughter back to the illegal country operation which will result in a step backward instead of a step forward. Many of us small plants will definitely close.”
- “It will take me as long to gather data and fill out paperwork as it does to produce my product!”
- “Most of us small plants CANNOT just come up with the money to do all the stuff you people want us to do. Where will it stop? You put 1/2 of all plants in Kansas together under one roof and THAT’s what you people call small plants...”

The second concern was about the confusion and lack of information that currently exists in the business. A sample of comments:

- “The Inspectors are not consistent in what they want. Everyone understands HACCP differently.”
- “The KS Dept of Agriculture has not given me anything useful to help develop our HACCP plans. The inspectors and their supervisors know less about HACCP than I do.”
- “Overall information on all of the new and never-ending rules and regulations is not readily or easily attainable. The state inspectors know some (nothing so far on HACCP) but not enough.”

The third concern was the inability to sell meat products across state borders (only USDA-approved meat products can cross state lines). Here’s what they had to say:

- “Why should the taxpayers in Kansas pay for an inspection system (HACCP) that will not let us cross the state line. Let the government take over and pay the cost of the inspection, then we will be able to cross the state line.”
- “I hope that through implementation of HACCP that the USDA will approve the interstate transportation of State-inspected products. For inspected plants on the borders this is imperative.”

tration for state inspection programs and the plants under their supervision. They think that if their programs are “equal to” the federal program, they should be allowed to sell their products across state lines.

Product safety is still the main reason federally inspected plants and their trade associations say they want the ban on interstate commerce for state-inspected plants to continue. However, officials at Kansas State University, the Department of Agriculture, and some trade associations representing small processing plants told us they thought product safety should no longer be used as a reason to restrict interstate commerce, given the implementation of the new requirements. They also said they thought it seemed strange to say products were safe for consumption within one state, but not in another.

One additional issue that troubles State-inspected plants is that meat plants in foreign countries can sell their products in the United States if those countries have inspection systems the Food Safety and Inspection Service has judged to be equivalent to the federal inspection system. That means a federally inspected plant in Kansas can sell in Missouri, a qualified South American meat plant can sell in Missouri, but a State-inspected meat plant in Kansas can’t.

**Some Plant Owners We Talked With Thought
the New Federal Regulations Unfairly Targeted
Meat Processors**

According to government estimates, as many as 9,000 Americans die each year and millions more are sickened because of food-related illnesses. Research indicates much of the U.S. population lacks basic food-safety information, and handles and prepares food in an unsafe manner.

Officials from the Food Safety Inspection Service and Kansas plant owners we talked with cited the need to educate consumers about how to handle food. Plant owners were especially concerned that the new federal regulations were being applied only to their operations, when much of the problem was caused by consumers. For example, one plant owner told us about a customer who'd asked him to place the roast she'd just bought in leak-proof packaging, so that it wouldn't bleed all over the kitchen floor when she set it out to thaw overnight in front of the refrigerator vent. That apparently was how she thawed out her roasts.

Kansas State University food safety experts told us that consumers need basic education in some of the "best practices" for handling and preparing food. At the store, these include wrapping raw meat, poultry, and seafood in plastic bags before putting them in the shopping cart, and avoiding dented cans or jars that might have bacteria. At home, these include setting refrigerators and freezers at proper temperatures, washing hands properly before and after handling food, thawing meat, poultry, and seafood in the refrigerator, cooking all meats to at least 160° F and whole birds to at least 180° F, and keeping hot foods hot and cold foods cold, especially on picnics.

A proposal by the U.S. Department of Agriculture may start the process to eliminate the ban on interstate commerce for State-inspected plants. At a recent conference on interstate trade, federal officials proposed eliminating the ban on interstate commerce on January 26, 2001—exactly one year after small plants must implement the last of the new meat processing requirements. The proposal requires state programs to adopt all federal regulations, but state officials still would have the option of adopting stricter regulations.

This proposal could be the result of a lawsuit filed against the U.S. Department of Agriculture over the interstate commerce ban by the Ohio Department of Agriculture and a group of Ohio's state-inspected plants. The parties reached an agreement specifying that the Department would work to lift the ban. The Ohio group is pushing for the ban to be lifted once a state-inspected plant has implemented the last of the new requirements.

Conclusion

Because the requirements for Kansas' meat-inspection program are at least equal to the federal requirements relating to sanitation and inspections, there are no additional costs for having more stringent requirements. Department officials and Kansas' State-inspected plant owners are frustrated with the federal prohibition against selling meat across State lines, but any changes in this area will have to be made at the federal level.

APPENDIX A

State-Inspected Plant Survey Summary of Responses

We sent surveys to all 141 State-inspected meat plants in Kansas. We received 75 survey responses for a response rate of 53%. A summary of the survey results is included in this appendix.

State Inspected Plant Survey

In 1996, the United States Department of Agriculture's (USDA) Food Safety and Inspection Service (FSIS) implemented the Pathogen Reduction and HACCP regulations. Questions 1-6 ask about the new regulations. Question 7 asks about the Kansas Department of Agriculture's inspection process.

Question 1: The major programs of the new regulation consist of the following: Please check a response (yes, no, not sure) for each choice listed below.

Yes	No	Not Sure	Choice
<u>69</u>	<u>1</u>	<u>1</u>	Sanitation Standard Operating Procedures (SSOPs)
<u>21</u>	<u>16</u>	<u>29</u>	<i>Listeria</i> sampling and testing of ready-to-eat meat products
<u>56</u>	<u>5</u>	<u>8</u>	Generic <i>E. coli</i> testing
<u>15</u>	<u>18</u>	<u>33</u>	Residue testing
<u>25</u>	<u>17</u>	<u>24</u>	<i>Salmonella</i> testing
<u>49</u>	<u>9</u>	<u>10</u>	Hazard Analysis and Critical Control Point (HACCP) systems

Others, please list: 2

Question 2: How did you find out about the new federal regulations? Please check all responses that apply to your plant.

- 56 Kansas Department of Agriculture mailings or meetings
- 62 Kansas Department of Agriculture inspectors
- 28 USDA /FSIS mailings or meetings
- 50 Kansas State University
- 48 Trade associations (i.e., KMPA or AAMP)
- 4 Internet
- 0 I didn't know there were new regulations
- 8 Other

Question 3: The new regulations will affect my business in the following way(s): (Please check all responses that apply.)

- 2 no effect on my business
- 14 change my plant's inspection status (for example, from state to custom)
- 46 extra costs for new equipment (for example, computers or new cooling units)
- 55 extra costs for microbiological sampling and testing (lab costs, etc.)
- 54 extra time and costs for training or hiring employees
- 62 extra time documenting the steps I take to prevent food safety hazards
- 26 eliminate some of my plant's product lines
- 15 force me out of business
- 0 I didn't know there were new regulations
- 9 not sure

Additional comments about any effects the new regulations will have on your plant:

(over please)

Question 4: From each category listed below, please estimate additional costs your plant will have *because of the new regulations.*

Employee Training and Labor Costs
(workshops, new hires, etc.)

- 3 no costs
- 28 not sure
- 3 less than \$100
- 5 \$101 to 500
- 12 \$501 to 1000
- 6 over \$1,000
- 12 over \$2,000

Microbial Sampling and Testing Costs per Year
(lab costs, etc.)

- 3 no costs
- 23 not sure
- 1 less than \$100
- 2 \$101 to 200
- 12 \$201 to 400
- 10 \$401 to 600
- 16 over \$600

Plant Structure & Equipment Costs
(new flooring, computers, etc.)

- 4 no costs
- 22 not sure
- 2 less than \$500
- 1 \$500 to 1,000
- 3 \$1,001 to 2,500
- 5 \$2,501 to 5,000
- 11 \$5,001 to 10,000
- 15 over \$10,000

Other:

Question 5: Check any of the following responses most closely describing your training in HACCP. Choose **all** that apply to your plant.

- 20 At least one plant employee has had HACCP training
- 21 My plant's work schedule doesn't allow me to get HACCP training
- 13 Location of HACCP workshops isn't ideal
- 18 An employee in my plant or myself is planning to attend HACCP training
- 2 I didn't know HACCP training was available
- 35 No one at this plant has had HACCP training
- 4 Other _____

Question 6: Kansas Department of Agriculture has been informative and helpful in explaining the new regulations.

1	2	3	4	5
Strongly Disagree				Strongly Agree
(7)	(19)	(24)	(11)	(12)

Question 7: Kansas Department of Agriculture Inspectors conduct fair and consistent inspections.

1	2	3	4	5
Strongly Disagree				Strongly Agree
(8)	(10)	(18)	(19)	(17)

Please feel free to add any additional comments about the State's inspection program.

Please attach additional pages as necessary.

APPENDIX B

Agency Response

On February 26, 1998, we provided a draft copy of the audit report to the Department of Agriculture. We also provided the Department of Commerce and Housing Agriculture Products Development Division a draft of the audit section related to their Division. Their responses are included in this appendix.

STATE OF KANSAS

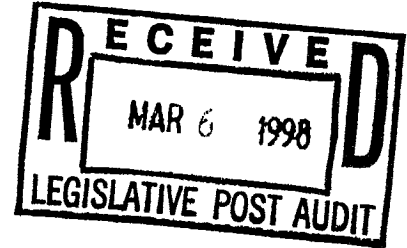
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KANSAS DEPARTMENT OF AGRICULTURE

March 6, 1998

Barbara J. Hinton
Legislative Post Auditor
Mercantile Bank Tower
800 SW Jackson Street, Suite 1200
Topeka, KS 66612-2212



Dear Ms. Hinton:

Thank you for this opportunity to respond to the Legislative Division of Post Audit's report examining portions of the Kansas meat and poultry inspection program and its implementation of new federal food safety regulations.

As the audit states, "a number of factors have contributed to some anxiety and uncertainty about implementing the new requirements for state-inspected meat and poultry plants." We have undergone a number of activities to assure our program and employees are not contributing to the confusion and to assure that we provide the best information possible. These efforts are ongoing and include the following activities.

I directed staff to gather data and seek outside evaluation of the program. Using this information from peer review and systems analysis, we have been working to improve staffing efficiency, communication and consistency. We have met directly with USDA on several occasions. We have developed training and assistance programs for both industry and agency inspectors. We have gained authority to hire a third veterinarian supervisor in the field, a training officer, and have converted part-time to full-time positions to improve inspector staffing in the state plants.

We have provided assistance in funding training and facility improvements to small plants, and we have contracted with an individual to provide HACCP consultation to the plants at no cost. We have attended industry meetings to facilitate communication; we will continue to stress this relationship between the inspection program and the plants.

For the past 18 months, this department has used the peer review process, systems analysis and employee team meetings to analyze the program and create a plan to assist department employees and the state plants in dealing with changes which will occur with the new federal requirements. This training, detailed below, is ongoing.

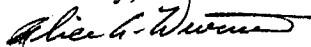
Training which has occurred to date includes:

- Employee training on PBIS: Spring 1997.
- Employee training on SSOP (Standard Sanitation Operating Procedures): Fall 1996 / Spring 1997.
- E. coli Testing Training in concert with industry: July 1997.
- At area meetings for employees, September / October 1997, training and updates were presented on: Dealing with Change, SSOPs / PDR Implementation and Enforcement, and PBIS.
- Supervisors have made individual visits to each agricultural inspector I to assess training needs. By spring, all supervisors also will have attended a three-day HACCP training course.
- Feb. 21 and 28, KSU Extension provided basic sanitation training on Personal Hygiene, Plant Sanitation and Hygiene, Good Manufacturing Processes, Physical Hazards in Plants and an update / refresher course on SSOPs in a 3/4-day course. Industry and KDA inspectors attended training together. KDA provided training at no cost for industry attendees.
- Department staff and KSU faculty will explore methods of providing continuous education on an ongoing basis for both inspection staff and plant personnel in coming years. Such continuing education units may be provided in modular or other formats. It is important that training efforts are ongoing to ensure consistency of inspection and sanitation in plants across the state.
- The FSIS training office at College Station, Tex., has agreed to create a short course on sanitation and processing and their importance in the PBIS system. This course will be presented during the April 2-3 statewide employee meeting.
- KSU will offer the three-day HACCP course in Dodge City in March and again in Manhattan in July. Retraining funds again will pay for half the cost of industry training.
- The state inspector's meeting, scheduled for April 2-3, will also include the basic HACCP overview with its seven principle components.
- FSIS is offering in April 1998 at Texas A&M "Train the Trainer" training for regulators implementing HACCP. The new training officer and possibly one other staff will be sent to this event. These KDA staff then will be able to provide intensive training in HACCP to the inspection staff during the remainder of calendar year 1998. All inspectors will receive HACCP training.
- Inspectors are now reviewing the workbooks of the Inspector Development Course; supervisors held January training sessions in three locations in January to discuss these workbooks.

KDA is committed to continual improvement of this program. A regular program of training, including and beyond that outlined above, is vital to this improvement. We are confident that communications, training and consistency will assist and benefit both the department and the state's small meat plants.

Again, we appreciate the professionalism of the audit team and the suggestions for improvement contained within the audit.

Sincerely,



Alice A. Devine
Secretary

KANSAS

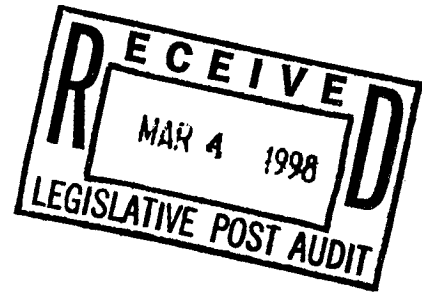
DEPARTMENT OF COMMERCE & HOUSING



March 4, 1998

Bill Graves, Governor
Gary Sherrer, Lt. Governor / Secretary

Barbara J. Hinton
Legislative Division of Post Audit
Mercantile Bank Tower
800 SW Jackson St., Suite 1200
Topeka, KS 66612-2212



Dear Ms. Hinton:

This letter will serve as our division's response to the draft performance audit, *Assessing Whether State Regulation of Meat Processing Plants is More Stringent and Costly than Federal Regulations Require*. We would respectfully request it be included in the final audit report.

We have concerns that the FSIS inspector who gave testimony during 1997 was inconsistent with his own agency's published estimates of costs to be incurred during the HACCP implementation process. His testimony asserted that "new requirements shouldn't have significant impact on meat plant operators' costs", when in fact USDA's low-cost estimate was \$25,000 (as you state in your report and we used as a guideline for our low-end estimate in our 1998 testimony). We maintain that \$25,000, to many of our small plant operators is, in fact, a significant cost.

Our division's high-end cost estimate in our 1998 testimony was based on discussions with meat scientists following the KDFA approval last fall for the loan made to a Kansas plant for the purchase of steam pasteurization units. Though it is true, steam pasteurization units are not required by federal regulations to be a part of HACCP plans in any size plant, according to meat scientists, a plant owner/operator may decide that steam pasteurization will be a component of their pathogen reduction written plan and a critical control point. This is then written into **their** HACCP plan and becomes a part of their compliance program for state and federal inspection. In fact, the companies that manufacture the steam pasteurization units are currently developing smaller units that should allow smaller plants to implement the technology at a more reasonable cost. This exemplifies that each HACCP plan, for each plant, for each species, for each product, will

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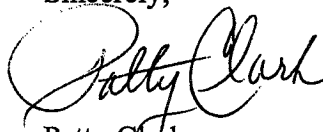
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be developed to meet the unique circumstances and facility conditions of each individual plant as determined by the plant owner/operator.

HACCP implementation continues to be a concern of Kansas plant owners/operators. Knowing this concern could be reflective of a lack of education about finalized HACCP regulations by those plants that had not yet attended a HACCP Training Seminar, we asked our staff in western Kansas to personally visit those plants in December, 1997, to explain our state's HACCP Implementation Program and notify the plant managers of upcoming seminars in Manhattan and western Kansas. These one-on-one discussions with Kansas plant owners/operators were the basis for the 20-30% prediction for plant closure or plant conversion to custom slaughter as cited in our 1998 testimony.

We appreciate the opportunity to respond to the post audit report and would hope this information clarifies the points salient to our division.

Sincerely,

A handwritten signature in cursive script that reads "Patty Clark". The signature is written in black ink and is positioned above the printed name and title.

Patty Clark
Division Director

PC:tg