



# FoodBytes

Indiana State Department of Health

## “Interventions” are inspection key

What are the best criteria for food establishment operators and public health inspectors to use to prevent consumers from getting sick from the foods they consume?

The Centers for Disease Control and Prevention (CDC) investigated why people get sick from the food they eat and found that the problem could be summarized into four categories. These included a lack of food safety knowledge by food workers, sick employees handling food, workers touching food with their bare hands, and a lack of under-



standing of proper food cooking and holding temperatures.

The food code focuses on these areas, but identifies them as “demonstration of knowledge,” “hands as a vehicle of contamination,” “employee health,” and “time / temperature relationships.” Also added to this list is the

“Consumer Advisory” meaning if food is served undercooked (unless otherwise prohibited) the consumer must be informed in writing about the health risks.

Inspectors must ask managers questions during inspections. “What is your policy for handling ill employees?” “Who is trained in food safety?”

Inspectors must observe food handlers to make sure they do not touch edible food with bare hands.

Taking the temperatures of foods being cooked or held for service is also a must during inspections.

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### *It's a matter of “control.”*

The focus of the retail food establishment inspection is to determine, as much as possible, that every stage in the life of a food product is under control, from the time it comes in the back door until it leaves with the customer. Inspectors should use two basic elements to determine this: observation (taking temperatures, watching employees), and asking questions.

## Turkey eggs find their way into ethnic bakery



**A** Tippecanoe Co. Health Dept. inspector was walking through a bakery recently during a routine inspection and spotted this: two five-gallon buckets of eggs. These were not just any eggs, but really large ones.

“What are these?” she inquired. “Where did they come from?”

The eggs were just sitting out at room temperature. There were cracked eggshells in the nearby trash can, evidence that the eggs were being used.

The operator said he didn’t understand what she wanted. But determined to find answers to her questions, she called upon a co-worker from the health department

to act as a translator.

The operator still claimed not to know what kind of eggs they were, but finally did acknowledge buying them from a turkey farm in a nearby county.

But what does an inspector do about turkey eggs?

The inspector did contact the Indiana State Egg Board at nearby Purdue University and a representative there did identify the eggs as turkey eggs, but said they are not regulated nor inspected under the laws governing eggs in Indiana.

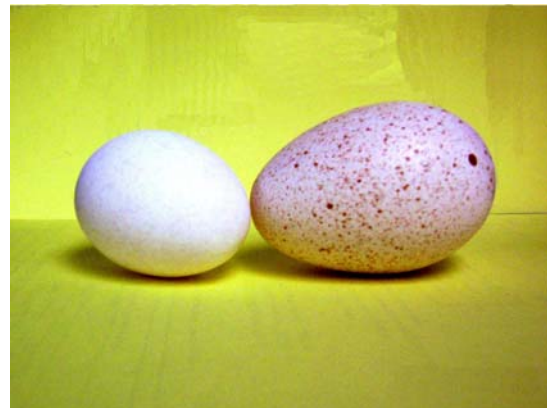
According to the National Turkey Federation, turkey eggs taste similar to chicken eggs but are larger, have a slightly darker color, and the shells are marked with brown speckles.

One turkey may lay 70-100 eggs per year whereas chickens might each lay upwards of 200 eggs yearly. Turkey eggs have their greatest value in making

more turkeys. Since there are far fewer turkey eggs available, the cost is much higher.

So why use turkey eggs? Some cooks feel that the eggs create a “fluffier” baked product, while not altering the taste.

So how did the inspector handle the “eggceptional” problem? She told the bakery that since the eggs were from an uninspected and unapproved source, they could not be used. The bakery has since ceased operation on its own.



**A turkey egg, shown on the right, is much larger than a chicken egg, so confusing the two is unlikely.**

*(Tippecanoe Co. Health Dept. photo)*

## Food handler Certification now exempts non-profits

Typically, food inspectors can’t tell you the name of any bill before the legislature, but they knew this one: House Bill 1056. It was the anticipated amendment to the food handler certification rule that became effective in January.

The major change in this bill is the exemption of all Indiana non-

profit organizations from the certification requirement that says that at least one “certified” person shall be employed by a food establishment in which food handling occurs.

Non-profit organizations providing food to the public are exempt from certification, regard-

less of whether they might be subject to inspections.

There are some menu exemption changes, mainly dealing with the serving of “pre-cooked” foods. The Food Protection Program at ISDH has developed a memo detailing the changes and how inspectors should handle them.

## FPC provides forum to share ideas, gain information

The Indiana Environmental Health Association (IEHA) has an active committee devoted to food protection issues. The Food Protection Committee (FPC) offers an opportunity for inspectors to gain insight on a broad spectrum of food safety issues, code interpretations, and inspection techniques.

The FPC comprises 11 voting members including representatives from the Indiana State Department of Health, industry, academia, and

each of the eight chapters of IEHA. But the meetings are always open to all IEHA members.

### How members benefit

The Food Protection Committee was formed to promote an educational forum for the professional development and technical proficiency of persons working within the food protection field of environmental health. The committee disseminates information pertaining to food safety and food protection issues

through five meetings each year. The meetings are structured around current issues, topical discussions, and feature guest speakers.

In addition, the Committee serves its members by undertaking special projects. Past projects have included the creation of a Model Food Ordinance, Temporary Food Establishment Guidelines, and the Emergency After-Hours Call-Out Contact Information Manual. This

*(Continued on page 4)*

## Foodborne illness outbreak teaches tough lesson

“During the last few days of 1992, at the height of the Christmas holiday period, several people on the U.S. west coast began to succumb to a lethal foodborne infection.”<sup>(3)</sup> Jack-in-the-Box, a popular West Coast hamburger chain was the theater to one of the largest outbreaks of *E. coli* O157:H7 in the United States. A simple

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A simple hamburger led to an outbreak that affected over 700 people in four states and caused several deaths.

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hamburger was the culprit. The outbreak affected more than 700 people in four states and tragically, several younger victims died.<sup>(3)</sup>

Foodborne illness was definitely a more popular subject after the incident with then President Bill Clinton calling the parents of

the children who had died as a result of the outbreak.<sup>(2)</sup>

Several new food safety concepts have been fueled since the Jack-in-the-Box incident. Molecular fingerprinting of *E. coli* O157 is one change used by the CDC PulseNet, a network of state public health laboratories that, through routine testing, are able to trace strains of the bacteria that lead to the possible identity of foodborne outbreaks sooner.<sup>(2)</sup>

The food industry has come up with new policies and procedures to make their products safer.



Slaughterhouses have been transformed, and the way inspectors look at the meat has changed.

There are no longer inspections based solely upon a visual inspection of a carcass. Instead, the emphasis is now on the way the animal is slaughtered, and on reducing the ways the meat is contaminated through the process.<sup>(2)</sup>

Food processors use the HACCP (hazard analysis critical control point) approach to get food through critical points in the process. HACCP, first introduced by NASA to give the astronauts safe food on the Apollo missions, has trickled down to the food industry particularly in slaughterhouses.<sup>(2)</sup>

Food irradiation that introduces food to low levels of radiation to

*(Continued on page 5)*

## British scientists uncover how *E.coli* became lethal

In the United Kingdom, a University of Liverpool scientist has discovered how the food poisoning bug *E. coli* O157:H7 became deadly to humans.

Twenty-three years ago a harmless gut bacterium called *E. coli* developed the ability to kill people through food poisoning, resulting in bloody diarrhea and kidney failure.

Normally *E. coli* bacteria live in the intestine and don't pose any danger, but some varieties can cause fatal food poisoning. The most serious in the UK and the US is *E. coli* O157:H7, which is carried by livestock (mainly cattle), and can enter the human food chain through contaminated meat and



inadequate food processing.

Dr. Heather Allison, from the University's School of Biological Sciences, explains:

"Sometime before 1982 an unknown virus that attacks bacteria passed on a part of genetic coding to *E. coli* that allowed some strains to make Shiga toxin. This lethal poison causes the notorious food-borne infection that results in bloody diarrhea and sometimes kidney failure in people," she said.

The team has now discovered how viruses can infect *E. coli*, by recognizing a newly identified but common receptor on the surface of

*E. coli* cells. This allows the viruses to gain entry into the bacteria. Once inside, the virus gives new genetic material to the bacterium, providing it with the ability to produce Shiga toxin.

In order to reduce the likelihood of picking up the *E. coli* bug, Dr. Allison suggests avoiding undercooked ground beef, foodstuffs in general that have come into contact with livestock feces and have not been cooked or properly washed, untreated water contaminated with livestock feces, and cooked foodstuffs that have come into contact with contaminated, uncooked meat products.

*University of Liverpool press release*

## Food Protection Committee (continued)

*(Continued from page 3)*

year, the committee is working on the creation of an Enforcement Policy Guidance Document that is intended to be used in conjunction with the Model Food Ordinance, which will assist local health departments in determining appropriate levels of enforcement action for problematic food establishments.

### Recent Issues

During the March meeting, Dr. Barbara Almanza, Graduate Program Director of the Hospitality & Tourism Management Department at Purdue University, talked about the criteria used in developing the questions for the



ServSafe Exam. Then in May, Mr. Ron Szumski, District Manager for Ecolab, was the guest speaker. Szumski presented Ecolab's "360 Degrees of Protection Program, which detailed Ecolab's efforts to address and prevent critical

violations experienced by their clients.

### Meeting information

For more information, contact your Chapter Representative to the Food Protection Committee or field representative. The next meeting is scheduled for August 12, 2005, 10:00 a.m. to noon local time in Rice Auditorium at ISDH.

The Food Protection Committee is one of several specialized standing committees designed to serve IEHA members. The FPC is chaired jointly by Kris Thomas of ISDH and John Kennard, Brown Co. Health Dept.

*Kris Thomas, Retail Food Specialist*

## New sanitizers appearing in Indiana establishments

Sanitizing products are showing up in food establishments that may be unfamiliar to many food inspectors. Some use chemical compounds that are not strictly quat-based, nor chlorine types.

One such example is called *Alpet D2* from Best Sanitizers, Inc. The product is pre-mixed so it should be applied directly from the container. It contains isopropyl alcohol and quats, therefore a specific test kit is needed for measuring its strength.



Alpet D2, an alcohol-based sanitizer for food contact surfaces, is used directly from the container. (Best Sanitizers, Inc.)

While it may be argued that a pre-mixed product doesn't need to be tested, inspectors who find this product in

use must still be able to determine if the label directions are being followed and such products are not being diluted.

Ecolab has introduced a quat sanitizer product that the company

says is effective over a wider range of strengths than other quat sanitizers. *Oasis 146* may be used at strengths from 150 to 400 ppm. Most quats are labeled to be used at 200 ppm.

For inspectors, the right test kit is needed for each sanitizing product. Inspectors must also read the label information on any sanitizer to determine proper usage and accepted strength ranges.

There are other new products that require specific testing methods to check strengths properly.

## Foodborne illness outbreak teaches lesson (con't)

(Continued from page 3)

rid it of harmful pathogens is emerging as a controversial way to deal with food safety. Bacteria that may be present in the food products are killed, giving the consumer a safer product. <sup>(2)</sup>

State and local food inspections have even gone through a change with the adoption of a risk-based approach. Inspectors now look at five CDC-identified risk factors: employee hygiene, inadequate cooking, improper holding temperatures, unsafe food sources, and contaminated equipment. <sup>(1)</sup> These risk factors are associated with foodborne illness outbreaks. The FDA Model Food Code, adopted by most states, also names public health interventions: demonstration of knowledge, bare hand contact, employee health, time/temperature, and consumer

State and local inspectors now use a risk-based approach to food inspections, looking at the risk factors and public health interventions.



advisories, as focal points during inspections. <sup>(1)</sup>

Most of our food comes from large-scale food production sites. Consumers expect safe food

whether it is cooked and put on our tables at home or purchased at a fast food outlet. Our food still remains the world's safest. Foodborne illness outbreaks like the one that occurred in 1992/1993 with Jack-in-the-Box are rare, but they provide a reality check about handling food safely.

Notes:

(1) FDA Standardization 2001 Food Code. "Field Workbook." US Department of Health and Human Services, Food and Drug Administration. Revised copy 2003.

(2) "Modern Meat." Frontline interview with Dr. Robert Tauxe. 18 April 2002.

(3) Satin, Morton: Food Alert! The Ultimate Source Book for Food Safety. New York: Checkmark Books, 1999.

Lisa Harrison, Retail Food Specialist



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## Bits, Bytes, and Blurbs

Send your questions to the e-mail or postal address above.

- ◆ **You think you have it tough during temporary events? A Food Service Director in the Hotel Tourism Management program at Purdue University says about 6000 guests are served meals during each Purdue home football game in the stadium's guest suites.**
- ◆ **Inspectors who find food temperatures are too high in deli cases and open-faced coolers might check the ambient temperature of the room where the equipment is installed. Most units are not intended to operate where the surrounding temperature is above the mid 70-degree range. Also, be sure the air flow across the**

**open face of the coolers is not restricted by blocked vents.**

- ◆ **With printed copies not available, the easiest way for establishment operators to access the food code is on line. Go to the Web site in the box above, and click on "Retail and Wholesale Laws, Rules, and Regulations." Then click the link, "410 IAC 7-24." You'll find the code in PDF format. If desired, this can be downloaded**

**and saved. ISDH Retail Foods field staff can help, if needed.**

- ◆ **Nearly three dozen health departments have signed on to use the FIRMS database, and the number is growing.**

### Calendar

IEHA Fall Conference  
September 26, 27, 28, 2005

ISDH Food Symposium  
March 7, 8, 9, 2006