

Why line speed is 'non-negotiable'

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For five years, Juan Herrera struggled to keep up with the line.

Every 12 seconds he had to cut or slice or lift or separate a new square of ham in his job at an Omaha meatpacking plant.

"I've had surgery to repair my right shoulder," Herrera said in Spanish. "Both hands are injured. My wrists and elbows ache. I'm having problems with my left shoulder now."

He fears the repetitive motion injuries are permanent.

Herrera is one of thousands of meatpacking workers in Nebraska. He and others say the work is hard, grueling, and it is harder and more grueling because of how fast the production line moves.

According to statistics compiled by the federal Occupational Safety and Health Administration, meatpacking is the most injury-prone industry in the country, with one of every five workers reporting injury or illness in 2001. In Nebraska, the injury and illness rate was even higher, at 23.1 percent.

Line speed is the alpha and the omega at meatpacking plants.

It determines job numbers and workloads.

It affects injury rates.

And it is directly connected to food safety, many experts say.

U.S. Department of Agriculture inspection records obtained by the Journal Star through Freedom of Information requests indicate that when fecal contamination is discovered near the end of the line at meatpacking plants, the built-in response is to slow the speed of the line.

And that, critics suggest, is tacit acknowledgement of cause and effect.

"Line speed is the sacred cow," said University of Nebraska at Omaha sociology Professor Lourdes Gouveia, choosing her words with a touch of satire. "Uncompromising high speed is not an occasional problem. It's permanent. It's inherent. And it's non-negotiable."

And it affects both worker and food safety, said Gouveia, who directs Chicano/Latino Studies at UNO and has focused much of her research on meatpacking and its immigrant workforce.

Despite outside criticism, the industry contends line speed is neither unreasonable nor uncontrolled.

Dan McCausland, director of worker safety for the American Meat Institute in Arlington, Va., said line speed is determined by industrial engineers who measure and balance tasks, staffing and speed.

"This is not Lucy and Ethel in the candy factory," he said of the old shtick in which Lucille Ball and her sidekick struggled to keep up with a speeding production line of chocolates. "That was good comedy, but it's not good production."

The economics and pace, an immigrant work force, the high rate of disability and injury, the questions raised about food safety, the debate about government regulation combine to bring a cast of various issues and players to the meatpacking stage.

- Worker advocates suggest it would make sense to have OSHA set and regulate line speed, but OSHA does not embrace that authority. And, critics of putting OSHA in charge say, it's clear the agency already is understaffed.
- The USDA's Food Safety and Inspection Service monitors meatpacking plants, but the plants themselves establish their procedures to address meat safety concerns, formulating so-called HACCP (hazard analysis and critical control point) plans to check the product and flag down any contaminated meat. A few plants, including Nebraska Beef in Omaha, are challenging USDA inspectors' authority.
- While worker advocates have centered their concerns on injuries, repetitive motion disorders and disabilities tied to line speed, they believe the public may become more engaged if they also focus on the connection between line speed and food safety.
- Industry representatives say OSHA and USDA effectively monitor the plants, that concerns about worker and food safety are factored into line-speed decisions and that the record clearly demonstrates that sanitation and inspection procedures assure the product is sanitary and safe. Furthermore, they say, plants promptly and aggressively recall tainted meat on the rare occasions the system breaks down.

Viewed from a metal catwalk, the scene below spreads out like a giant anthill, alive with activity, a blur of perpetual motion.

But only the arms and heads of the 660 workers move. Their legs remain in place.

Hands slice or tear at slabs of beef on eight long processing lines.

Hour after hour, the beef moves down the line.

The chain that feeds it from mammoth coolers into processing at IBP's huge Lexington plant moves the carcasses of 285 cattle per hour through the anthill.

It moves faster on the kill floor.

The chain carrying the cattle from slaughter through evisceration and systematic dismantlement hums along at a pace of 322 to 325 cattle per hour.

Five per minute.

One every 12 seconds.

Five thousand a day.

Speed is money.

- IBP, now part of Tyson Foods, employs 2,300 people in Lexington. That's nearly one of every four residents of this south-central Nebraska community.
- Men and women -- most of them Hispanic, many of them couples -- process 1.4 million cattle a year.
- If each animal's value is somewhere around \$1,000, you're talking \$1.4 billion in annual gross value of the product at this single facility.

The sprawling plant slaughters, dismantles, processes and spews out its product 16 hours a day, transforming cattle from live animal one day to boxed product ready for shipment a couple days later -with 36 hours in coolers wedged in between.

The key to all this productivity and profit: line speed.

"I take medicine all the time for pain," said Herrera, the Omaha meatpacking worker. "And I have to increase the medicine all the time."

Herrera is off the line now. He helps pack boxes at the plant. His medical work restriction order states he no longer can lift more than 20 pounds, he said.

Marcela Cervantes of Omaha used to work in both beef and pork packing plants.

"Using a knife to cut meat so fast and so many times hurts your tendons," she said. "And then your shoulders hurt. And then your back hurts."

And sometimes, she said, food safety may be compromised by the pressures of line speed.

"I remember times some of the meat did not smell or look good. Sometimes supervisors didn't care and they let the meat go down the line."

IBP Senior Group Vice President Eugene Leman, stationed at corporate headquarters in Dakota Dunes, S.D., said his company factors worker and food safety into its determination of line speed.

"If we design the plant right, provide adequate space for people to work and address ergonomics concerns," he said, a swift-moving line can operate efficiently and safely as long as it is adequately crewed.

Furthermore, he said, USDA inspectors -- about 15 patrol each shift at Lexington -- can perform their duties effectively at the current rate of speed.

"Appropriate staffing for a production line is set by industrial engineers who conduct studies to determine the number of people needed to safely, yet effectively, process certain product mixes," IBP added in a written statement.

OSHA statistics leave little room for argument that worker safety is a major concern.

And workers and their advocates contend line speed is one of the primary factors in that equation.

The meatpacking plant is a fast-moving work place filled with knives and cleavers and hooks and power tools, including saws. Many employees work in cold and damp rooms, and floors can be slippery.

OSHA says the nature of the work leads to a high incidence of what it calls "cumulative trauma injuries," repetitive motion disorders such as carpal tunnel syndrome.

A worker may be required to make thousands of knife cuts daily -- as many as 10,000 at some plants -- repeating exactly the same motion over and over again.

Despite improvements, OSHA says, "Workers in this occupation still face the serious threat of disabling injuries."

But none of that necessarily relates to line speed, said Mark Klein, communications director for Excel Corp., a subsidiary of Cargill headquartered in Wichita, Kan. In Nebraska, Excel operates a meatpacking plant in Schuyler.

"We did a clinical study in conjunction with Calgary University in Canada about what is causing repetitive motion trauma and they did not settle on line speed as the problem," Klein said.

Ergonomics improvements, including new equipment design, provide the means to address those issues, he said.

"If you take a look at injury and illness rates at smaller operations which operate at lower speeds, there is no discernible difference," said McCausland, the AMI safety director.

OSHA statistics speak for themselves, worker advocates contend.

"Reducing line speed is the most important thing you can do to reduce injury, along with job rotation," said Donald Stull, University of Kansas anthropology professor and author of books and articles exploring the meatpacking industry.

Consumers need to understand that food safety is on the table right along with worker health and safety when the issue is line speed, said Milo Mumgaard, executive director of the Nebraska Appleseed Center in Lincoln.

Mumgaard is using part of a \$130,000 Ford Foundation grant to explore the connection, alerting the public and applying pressure on meatpacking companies to operate at a reduced -- and, he argues, safer -- speed.

The organization is on the verge of litigation to pressure industry to slow down the lines, Mumgaard said.

"It's a logical proposition that line speed affects meat safety," Gouveia said.

Line speed's tether to food safety becomes clearer in USDA reports detailing what occurs when inspectors discover fecal contamination on meat at critical inspection sites near the end of the line.

At that point, the meat is trimmed and the line is slowed down, according to federal Food Safety and Inspection Service non-compliance reports obtained by the Journal Star.

And that, critics suggest, clearly draws the connection between food safety and line speed.

It is difficult to keep pace with the speed while attempting to flag down contaminated meat, some of which could be carrying E. coli or other dangerous bacterial agents, they contend.

"A lot of unclean product can pass through because the chain moves too fast," Stull said.

Using a Freedom of Information request, the Journal Star obtained 750 pages of USDA inspection records at six meatpacking plants in Nebraska.

Among the reports are five documents from Nebraska Beef in Omaha, four from the former ConAgra Beef plant in Omaha -- now owned by Swift and Co. -- and two from IBP's beef plant in Lexington. They show that line speed was reduced when fecal contamination was discovered on meat near the end of the line.

"It's a lot harder to get a clean product at the speed we run," said Tiberio Chavez, a former maintenance worker at the ConAgra plant. "Some of the meat may not be truly inspected or properly trimmed because of the speed."

On the contrary, said Swift spokesman Jim Herlihy of Greeley, Colo., his company is "nationally recognized as a leader in product safety."

Line speed is a factor in food safety, said federal food safety spokesman Matt Baun, but an acceptable speed already is factored into a company's food safety plan.

"USDA says exactly how fast the line can go and how many inspectors must be on the line," said Janet Riley, vice president of public affairs at the American Meat Institute.

For more than five years, the federal meat inspection program has allowed companies to establish their own procedures to address meat safety concerns. In the process, USDA authority was significantly reduced.

Critics of the program include the General Accounting Office, the investigative arm of Congress, which warned:"In cases where hazards have not been completely identified, the HACCP system is unlikely to be effective in ensuring food safety."

It is ironic, Gouveia and her research colleagues say, that "working conditions, line speeds, the causes and consequences of turnover, deskilling, particular hiring and training practices are, for all intents and purposes, not considered 'critical control points' and are absent from most meat safety discussions."

There's a food safety consequence to all of that, they suggest.

"The probability of human error or accidental contamination increases when slaughtering and meat processing are subjected to relentless pressures to increase productivity via the intensification of the work process," Gouveia and her colleagues concluded in a research paper.

The tie between line speed and food safety appears to be clearly drawn in the food safety plan at Swift and Co.'s Omaha meat plant.

USDA inspection reports routinely refer to the plan's reliance on "reduction of chain speed" when fecal contamination is discovered. Other responses include "additional help, carcass spacing and/or stop production."

USDA has established a zero tolerance for fecal contamination. Meat smeared with fecal matter must be removed and cleaned by trimming.

Fecal excrement is the chief breeding ground for E.coli bacteria, which kills 60 Americans each year and makes another 73,000 people -- mostly children and the elderly -- sick.

Meatpacking companies insist food safety is a top priority.

Plants have made great strides in technological improvements that protect meat safety, company representatives contend.

And, they say, companies are quick to respond to what they describe as the rare breakdown that may send contaminated meat into the marketplace.

They point to ConAgra Beef's recall last July of nearly 19 million pounds of beef processed at its Greeley plant when two dozen people fell ill after eating meat tainted with E.coli.

Company representatives say the broader experience demonstrates the food safety inspection system works.

Herlihy, the Swift spokesman, said a USDA non-compliance report is "not an indication something is going out that is contaminated."

"Non-compliance tells us something needs to be addressed, but we're only half-done with the process at that point."

The fact that contamination is flagged down is the key point, company representatives suggest.

While extolling his company's overall food safety record, IBP Vice President Leman said: "If there's fecal material at the end of the line, we've done something wrong."

IBP has committed more than \$100 million in capital expenditures and increased operating costs since the mid-1990s to improve food safety and quality, Leman said.

That includes development of a sanitation process that subjects meat to steam vacuum, carcass wash and organic acid rinse, accompanied by a trip through a steam pasteurization cabinet.

Although line speed is regarded by workers and their advocates as a major factor in injury and disability, it is not regulated by OSHA.

"All the ergonomics and technological advancements are beating around the bush," said Mumgaard at the Appleseed Center. "Line speed needs to be regulated on a national level, presumably by OSHA. We need much more aggressive guidelines."

Gouveia agrees.

"But there is a total reluctance by the Department of Labor to seriously entertain the possibility of regulating line speed or investigating the science or kinds of reasonable standards that could be established in negotiation with workers," she said. "OSHA alleges there is no science. That's the ultimate cop-out."

OSHA officials in Washington were reluctant to answer questions about line speed's relationship to worker safety or how they react to suggestions their agency be given authority over line speed.

"We're going to have to decline," media spokesman Frank Meilinger responded several days after fielding a request to speak with OSHA officials.

A subsequent phone call to the U.S. Department of Labor -- OSHA's parent agency -- prompted a brief written response from an OSHA official who asked not to be identified: "When OSHA conducts an inspection at a meatpacking or poultry processing facility and is evaluating potential hazards, line speed may be one of the many factors that are considered. Control of line speed may be one of the possible abatements recommended by the agency."

It's clear OSHA is understaffed and the Food Safety and Inspection Service "essentially lets the industry police itself," Stull said.

"I think government regulations and national standards are necessary to mandate line speed."

But regulation of business is not a popular political priority in Washington today. And OSHA, in particular, has been under fire for most of its existence.

Matt Baun, the federal safety and inspection spokesman, said he doesn't believe there necessarily would be fewer problems with food safety if line speed was reduced.

"The inspector in charge has authority to require a plant to reduce line speed when, in his judgment, the inspection procedure cannot be conducted safely or if the condition of the animal, or carcass, indicates a need for more extensive inspection," he said.

Klein, the Excel spokesman, said line speed "ultimately is determined by USDA."

Herlihy at Swift agreed: "USDA sets the maximum allowable line speed at each plant. And we're consistently below that."

The USDA inspection records obtained by the Journal Star cited 390 non-compliance violations during summer and the fall of 1999 at six Nebraska plants selected by the newspaper.

Only a scattering of those reports dealt with the issue of fecal contamination and line speed.

Figures documenting exact line speed were blacked out on the reports. USDA maintains those numbers are proprietary information protected under Freedom of Information exemptions.

However, a few figures apparently slipped through the process.

A June 15, 1999, document listed line speed of 334 head per hour at IBP's Lexington plant. A Sept. 8, 1999, document reported line speed of 335 at the plant.

Those numbers approximate figures cited by Leman during a tour of the plant a year ago.

A June, 29, 1999, document said line speed at the Nebraska Beef plant in Omaha was reduced from 275 to 248 head per hour after discovery of fecal contamination at USDA's final inspection station.

In a letter to Nebraska Beef last September, USDA referred to company food safety monitoring procedures "based on production averaging 275 head per hour."

What's a reasonable rate of speed?

It depends in large part on how many workers are on the line, company spokesmen say.

"You know the tasks, the time it takes and you calculate the number of people you need," said Leman, the IBP vice president.

The key concept is balance, said McCausland of the American Meat Institute.

"There's a misunderstanding that employers can crank up line speeds to whatever they want and force people to work faster and faster," he said. "But if you get the line running too fast, people can't keep up and there's no way they can do a good job. There's a huge cost if you lose quality and have a degraded product.

"You've got to balance the speed of the line and the size of the staffing," McCausland said.

"They speak as if it's a totally objective statistic, but profit drives the daily schedule, not how many workers are there," countered Gouveia. "The power relationship allows the employer to determine how fast can I make this worker work.

"'Work at this speed or you're not working. Work at these wages or you're not working.' The issue here is power. (And)who's going to rock the boat when entire communities and state economies are anchored to the vitality of this industry?"

Slowing the chain "wouldn't break the bank" for meatpacking companies, Stull said.

"We consumers should demand that. It would improve the safety of food and reduce injuries and turnover, which in turn affects the quality of work."