



## Memorandum

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Subject: Strategies to reduce COVID-19 transmission at the Tyson Foods meat processing facilities in Finney and Lyon Counties, Kansas

### Background

On April 20, 2020, CDC received a request for technical assistance from the Kansas Department of Health and Environment (KDHE) in developing strategies to help prevent SARS-CoV-2 infections in workers at multiple Kansas meat processing facilities. We are copying the appropriate county health officials and company representatives on memos for each of the five facilities we visited (three company memos covering five plants). We are also including 'best practices in implementation' seen in facilities of all three companies (National Beef, Cargill, and Tyson Foods) with their permission. In our opinion, highlighting these 'best practices in implementation' will improve mitigation strategies and further educate the decision makers within these meat processing facilities.

On April 23, a CDC team held a teleconference with Tyson Foods corporate staff to learn about the current efforts that Tyson Foods was taking to protect employees from SARS-CoV-2 in their processing facilities. We visited the Tyson Foods plants in Finney County on April 28, 2020, and Lyon County on May 1, 2020. At the Finney County plant, we observed the fabrication process and toured the harvesting work area. The fabrication process was operating at lower capacity due to reduced worker numbers and the harvest areas were not operational at the time of our visit. Worker numbers were reduced due to SARS-Cov-2 positive workers in isolation (approximately 87 at Finney County site and 114 at Lyon County site at the time of our visits), and workers in quarantine as a result of close contact with a positive case or self-quarantine for personal reasons (approximately 50 at Finney County site and 135 at Lyon County site at the time of our visits). Overall increased absenteeism (not included in the previous categories) contributed to the

reduced workforce (approximately 200 at Finney County site and 146 at Lyon County site at the time of our visits). The harvesting area is where animals are stunned, eviscerated, and processed into beef halves. The fabrication department processes the beef carcasses into various beef products/cuts that are boxed for shipment. The Lyon County plant was a further processing facility and no harvesting occurred there. Employees processed meat into ground beef, commercial products, and pieces that will be further processed. The plants operated two processing shifts and a third sanitation shift. This third sanitation shift cleans the entire plant with a focus on processing equipment. All employees performing sanitation are from third-party contractors. We also met with staff from the Finney and Lyon County Health Departments to learn about their efforts in contact tracing and testing symptomatic residents for SARS-CoV-2 infection.

This memo is not intended to document every observation and intervention that occurred at each plant. It is a summary of the plants' implementation of the CDC/OSHA guidance found at <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/meat-poultry-processing-workers-employers.html>. We observed that companies had implemented many recommended changes by the time of our site visit. We discussed our preliminary recommendations for each facility during closing meetings while onsite to facilitate their timely implementation and offered best practices we saw across sites in Kansas. This memo summarizes and highlights areas where we observed best practices for implementation of the CDC/OSHA guidance across companies and areas that could be modified to more closely match existing guidance to better protect worker safety and health. Additionally, our recommended controls are intended to supplement those required and recommended by the KDHE and county health officers per the KDHE [modified quarantine](#) of close contacts who work in critical infrastructure.

## **Observations and discussion**

Both sites have instituted body temperature monitoring upon entrance to the plant. Both sites use a thermal imaging system for body temperature measurement. Employees at the Lyon County site are also asked additional screening question about symptoms and travel. The Lyon County site thermal imaging system was set to alarm at 99°F to trigger secondary screening at the occupational health clinic. Temperature screening was monitored by in-house staff. If an employee appeared to have a fever at either facility, they were evaluated by the onsite nursing staff.

Both sites had instituted a face covering requirement for all employees and visitors in accordance with CDC recommendations for critical infrastructure employees and the public. Every person arriving onsite was required to wear a face covering and employees were provided with a disposable facemask that resembled a "surgical or procedural" style mask every day. During our walkthroughs we observed essentially everyone wearing a face covering and wearing them correctly. Management said they had encouraged compliance among employees over the previous few weeks and initially the Finney County site had encouraged cloth face covering use before they could procure enough masks for everyone. Both sites had staggered both breaktimes and shifts to reduce the number of people in common areas during breaks and between shifts. To do this, the Finney County facility modified production practices to send fewer people to break at once (specifically slowing chain speed to extend break times).

Both plants had signage regarding COVID-19 symptoms and precautions in most of the languages understood by plant staff. Signs about social distancing messages and instructions to stay home when sick were posted in most common areas in at least English and Spanish. In both plants, some COVID-19 signage was posted in the break areas. At the Finney county facility additional monitors were being installed in common areas of the plant. At this facility, supervisory staff are also expected to provide individual instruction to line employees. The manager planned on recording video or audio announcements with COVID-19 education regarding social distancing and wearing face coverings. At the Lyon County plant, management had printed handouts on COVID-19 symptoms, prevention, effective isolation and other topics. The information was available in English, Spanish, and Vietnamese. Other educational materials were limited in common areas and at locker room entrances, at both plants.

At both facilities, physical barriers had been installed on tables in lunch areas. The Lyon County facility taped off all but two seats per table that were about 6 feet apart. They were considering adding outdoor spaces to accommodate more employees safely during lunches and breaks. Lyon County plant management monitor social distancing during breaks and encourage employees to refrain from congregating in groups. Management set up additional break/lunch areas outdoors at the Finney County plant and were considering additional semi-permanent break space. We did not observe handwashing stations or temporary restrooms near these overflow break/lunch areas. We talked with both sites about the need for additional break areas and toilets as more employees return to work, in addition to maintaining and expanding break timing strategies to reduce the number of employees at break at once. The Lyon County plant planned on reassigning lockers to spread out people in the same shift and line to reduce crowding. They had also installed visual cues to remind employees to remain 6 feet away from each other.

At both plants, barriers were installed between line workers in places where they could not maintain a 6 foot distance between employees. At Lyon County, the barriers were thinner plastic sheeting that was weighted at the bottom edge; during the walkthrough we observed the barriers move with the airflow on the production floor. Management stated they plan to install heavier vinyl barriers when material is available. For some areas on the harvest lines at the Finney County site, it may be difficult to install barriers or maintain spacing due to work processes. At pack out areas, heavy stripped plastic barriers were added between workstations to allow workers to move laterally when filling boxes with meat. The plants have plans to provide face shields to staff where barriers are difficult or impossible to install due to the task or work set up.

Hand sanitizer dispensers were located throughout the plants, notably at the entrances to the plant and at entrances to lunchrooms as part of the plant food safety program. Both sites had limited sanitizers within the break area. Additional staff have been assigned to clean and sanitize commonly touched surfaces more frequently, such as handrails, doors and door handles, and lunch tables at both sites.

Neither plant had formal social media groups for communicating with employees outside of work. One plant described a text message-based 411 system to share information with their staff in many languages. They are starting to send COVID-19 educational instructions through the system.

## Conclusions

Management at both sites had implemented controls at the plants to help prevent and mitigate the spread of SARS-CoV-2 between workers. Recommendations are provided below to assist both management and workers with efforts to limit virus transmission in the plant.

## Recommendations for Tyson Foods Management and Workers

As the plant works toward increasing production capacity as workers return, we provide the following recommendations to augment existing controls to help prevent the spread of SARS-CoV-2 between workers. We understand that with ongoing community transmission COVID-19 cases will continue to be identified. However, the existing and recommended controls with ongoing education will be useful in reducing transmission in the workplace.

These recommendations are intended specifically for the Tyson Food plants. A qualified workplace coordinator should be identified who will be responsible for assessment and control planning for interventions to be rolled out in the workplace. Employee representatives should be included on health and safety committees. Those involved in the work can best set priorities and assess the feasibility of our recommendations.

### Hierarchy of controls

The following recommendations should be considered for implementation according to the hierarchy of controls. Hierarchy of controls is an approach to hazard intervention that starts with the controls perceived to be most effective and moves down to those considered least effective. In most cases, the preferred approach is to eliminate a hazard or exposures (such as distancing), install engineering controls (such as barriers), and implement appropriate sanitation and cleaning to reduce workers exposure to the hazard. Until such controls are in place, or if they are not adequately effective or feasible, administrative measures and personal protective equipment (PPE) may be needed.

### *Finney County and Lyon County facility recommendations*

1. Require all employees whose role prevents both (a) distancing from employees around them and (b) the installation of a fixed barrier, to wear a face shield while working. For example, some positions in packaging and the kill area require being in close contact with adjacent employees and require frequent movement. When introducing the face shield, ensure the following steps are taken.
  - Use videos or in-person visual demonstrations of proper donning and doffing procedures. (Maintain social distancing during these demonstrations.)
  - Emphasize that care must be taken when putting on and taking off face shields to ensure that the worker or the item does not become contaminated.
  - Provide face shields that are either disposable (preferred) or, if reusable, ensure it is properly disinfected and stored in a clean location when not in use.
  - Face shields worn at the facility should not be taken home or shared.

2. Establish a close contact follow-up program per the modified quarantine requirements published by KDHE. According to their guidance, this includes prescreening, regular monitoring under the supervision of the occupational health office, medical check-ins, wearing face coverings, and social distancing as work duties permit.
3. As employees return to work, reassess conditions to allow employees to maintain social distancing, especially in common areas like lunchrooms, hallways, and locker rooms. Some strategies include further staggering breaks, lunches, and shift times to reduce and expanding the square footage of lunch areas and common areas so people can be 6 feet apart by installing covered outdoor areas for breaks.
4. Continue to identify solutions to promote social distancing in the workplace (i.e., maintaining at least 6 feet between workers.) The effectiveness of physical barriers in preventing coronavirus exposures between physically close workers is not known. Physical barriers should not be used as a replacement for social distancing and should only be used when it is not possible, due to work design or task to be completed (e.g., two people needing to work together on a single carcass or trimming tasks that need to be done next to one another).
5. Determine if proposed controls, such as barriers between work position on the line, could pose a safety hazard for workers. Ensure it would not be possible for workers' tools, hands, or arms to be caught between the barrier and moving parts of the conveyor. This may require trialing barriers before implementing them in all workstations where workers cannot be separated by 6 feet or more.
6. Analyze sick leave policies and consider modifying them to make sure that ill workers are not in the workplace. Make sure that employees are aware of and understand these policies. Analyze any incentive programs and consider modifying them, if warranted, so that employees are not penalized for taking sick leave.
7. Increase in-person COVID-19 educational messaging. Small group training while maintaining social distancing creates an opportunity for all employees to hear the same messages and for employees with limited literacy to learn in person.
  - Topics should include (a) recognizing signs and symptoms of infection, (b) how the virus spreads, (c) ways to prevent exposure to the virus, (d) proper handwashing and hand sanitizing, (e) cough and sneeze etiquette, and (f) putting PPE on and taking PPE off safely. All communication and training should be easy to understand and should be provided in languages appropriate to the preferred languages spoken or read by the workers, if possible; and be at the appropriate literacy level.
  - Employers should place simple posters in all languages that are common in the worker population that encourage staying home when sick, cough and sneeze etiquette, and proper hand hygiene practices. They should place these posters at the entrance to the workplace and in break areas, locker rooms, and other workplace areas where they are likely to be seen.
  - CDC has free, simple posters available to download and print, some of which are translated into different languages. The Stop the Spread of Germs poster is available in several languages on the [CDC website](#).
  - Employers should post signs that you can read from a far distance (or use portable, electronic reader boards) that inform visitors and workers of social distancing practices.

*Finney County recommendations*

1. Screen all entrants (workers/contractors/visitors) who enter the site for COVID-19 symptoms upon entry.
  - a. Third party medical screening allows site occupational health staff, supervisors, and security to focus on their regular duties and is considered a best practice. Employees should be screened for fever and symptoms associated with COVID-19 infection
2. Add visual cues throughout walkways, common areas, and locker rooms to remind staff to maintain a physical distance between employees. Most existing reminders at the sites are text based and may not be readable by some employees.
  - a. Practices that have been observed in other plants include markings on both the floor and walls in hallways, cafeterias, breakrooms, and locker rooms to remind employees of social distancing. The markings should have icons and be 6 feet apart rather than containing text instructing people to social distance.

*Lyon County facility recommendations*

1. Replace signage at hand sanitization stations with signs that describe how to properly sanitize your hands. Enough sanitizer should be used to cover all surfaces of fingers and hands and should take about 20 seconds to rub dry. This is comparable to the duration of effective handwashing. More information on hand sanitization and washing can be found here: <https://www.cdc.gov/handwashing/hand-sanitizer-use.html>.
2. [Ensure that the barriers installed between workstations are made of materials that aren't easily moved by normal air currents in the fabrication areas.](#)

**'Best Practices' Observed at Kansas Meat Packing Facilities**

Across all five plants we visited in Kansas, we observed 'best practices' that included both ways that the CDC/OSHA guidance was implemented as well as practices that extended beyond what was described in the guidance. Companies implemented these practices based on their frontline experiences and discussions with other plants, corporate staff, and unions where applicable. We highlight these 'best practices in implementation' to bring awareness to actionable practices that could be utilized:

- Used a third-party medical contractor to screen staff and other visitors to the plant. Post COVID-19 symptoms at the plant entrance in the most common languages spoken at the plant. \*
- Screened staff during breaks for fever to identify new onset or masked fevers during the workday. Some companies said this helped employees feel more comfortable and at least one plant had identified employees with a fever during these screenings who ultimately tested positive for COVID-19. \* ‡
- Lowered the temperature at which the thermal imaging system alarms for fever (99°F) to perform secondary screening. This may increase the sensitivity of a thermal imaging system. \*§¶

- Sanitized meeting rooms and offices between meetings or trainings. Document this on a posted log to prevent over or under-cleaning, and to assure workers that area has been cleaned and is ready to use. \*
- Utilized existing labor-management health and safety committees to implement controls and expand training. Distributed messaging from multiple parties (both union and company). Future messaging was planned to be taken from already developed sources, like KDHE and CDC. \*
- Displayed photos and/or videos of extra cleaning and sanitization for employees to see on video monitors or posters in common areas. Management have specifically shared media about cleaning and fogging that occurs at nights and weekends, when most plant employees are not at work. \* ‡
- Created an online social media group for employees through which management can share messages to their staff. ‡
- Used a system that can text employees to further\ distribute COVID-19 prevention and education messages (when available).
- Partnered with a local radio station to help deliver COVID-19 messages to the local community. Continuing to partner with multiple parties (the union and/or non-management employees) to deliver future messaging. ‡
- Installed barriers that are hung on bars that are parallel to the production line. The barriers can be slid parallel to accommodate employees' different work movements and styles. This prevents, as we observed in some places, employees' arms and elbows hitting the barrier with each cut of their task. ‡
- Used a card system at breakroom tables. Each card has one side that is green and one that is red. Employees should sit at tables with green cards and flip them over to the red side when they leave, indicating that the spot needs disinfection. This ensures tables are cleaned between uses and prevents unnecessary cleaning. Implementation will require worker education on the use and purpose of the card. Signs could be posted in the cafeteria in appropriate languages explaining their use. \*
- Educated employees in small groups about COVID-19. In-person instruction, when done in small, distanced groups, ensures that all employees receive the same message and that illiterate employees are also offered complete education. \*
- Installed signage about COVID-19 at every entrance, hallway, and at bathroom/locker room entrances and exits and on monitors throughout the plant in languages employees understand. Delivered audio messages in hallways in languages employees understand. \*§¶
- Made portable toilets and handwashing stations available at overflow outdoor break areas to encourage use and reduce locker room crowding. \*§¶
- Created a space where employees can remove face coverings briefly to make interpretation easier for one-on-one or very small meetings/counseling sessions. The space had physical barriers and was large enough that employees could maintain appropriate distance. §

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- Provided handouts with COVID-19 messages for employees to take home with them. The materials came from their corporate office, KDHE, CDC and other organization and were made available in several languages. The messages were available at the plant entrance and exit. ¶
- Reassigned lockers so people in the same shift and/or line were not next to one another to reduce crowding during shift changes. ¶
- Marked all seating (i.e., bench seating in locker rooms) with cues that are 6 feet apart to show employees where they should sit. Blocked off areas where social distancing cannot be maintained. Barriers should not be relied upon to keep people safe in common areas when additional break space can be provided and/or breaktimes can be managed to reduce the total number at break at the same time to fit the break space. ¶

Location where interventions were observed

\*Cargill, Dodge City

†National Beef, Dodge City

‡National Beef, Liberal

§Tysons, Holcomb

¶Tysons, Emporia

The plants should continue to consult with USDA to determine if proposed controls are acceptable with regard to food safety and sanitation. KDHE, Finney County Health Department, Lyon County Health Department, strategic community partners, and employees should continue to work together in educating employees about COVID-19 risks and prevention strategies. Thank you for your cooperation with this evaluation. We appreciate your interest in occupational safety and health.

**End of memo**