



Evaluation of Ergonomics, Dust, and Unanticipated Hazards at a Donation and Retail Store

HHE Report No. 2019-0108-3360

October 2019



**Centers for Disease Control
and Prevention**
National Institute for Occupational
Safety and Health

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Keywords: North American Industry Classification System (NAICS) 453310 (Used Merchandise Stores); Oregon, Dust, Ergonomics, Retail, Donation, Clothing, Unanticipated Hazards, Unknown Hazards, Sharps, Sharp Objects

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NIOSH [2019]. Evaluation of ergonomics, dust, and unanticipated hazards at a donation and retail store. By Grant MP, Reynolds L. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Health Hazard Evaluation Report 2019-0108-3360,
<https://www.cdc.gov/niosh/hhe/reports/pdfs/2019-0108-3360.pdf>.

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Introduction

Request

Employees from a donation and retail store requested a health hazard evaluation concerning ergonomics and exposures to dust and unanticipated hazards, such as needles, other sharp items, and feces- or urine-soiled items.

Workplace

The store had a retail side and a production side. Retail side employees were responsible for providing customer service, stocking inventory, and operating the cash register. Production side employees were responsible for the intake and processing of donations.

We visited the store for one day. During our visit, 21 employees worked at the store. Employees worked a single 8-hour shift with staggered start times to cover the hours that the store was open each day.

To learn more about the workplace, go to [Section A in the Supporting Technical Information](#)

Our Approach

We visited the store in May 2019. We completed the following activities during our visit:

- Toured the store.
- Observed production and cleaning practices.
- Reviewed personal protective equipment availability, use, and storage.
- Measured workstation dimensions.
- Held confidential interviews with employees about their work and health.
- Spoke with management about work practices, health and safety concerns, and our preliminary observations and recommendations.

Before our visit, we reviewed these documents: new employee health and safety training, injury reports, and health and safety meeting topics.

To learn more about our methods, go to [Section B in the Supporting Technical Information](#)

Our Key Findings

Communication gaps existed between employees and management

- Employees reported that they were feeling workplace stress due to lack of communication and management changes.

- Employees reported a perceived lack of response and acknowledgement of concerns on health and safety matters from management.
- Few workers knew they had access to the Employee Assistance Program.
- Employees perceived a disconnect between store cleaning policies and production pressure. Although there were daily and weekly cleaning protocols, employees reported that managers sometimes prioritized production over daily or weekly cleaning tasks.

Employees reported health problems they believed were related to work

- Employees most commonly reported joint and muscle pain, fatigue, and irritated eyes related to their work. Some employees attributed their joint and muscle pain and fatigue to heavy lifting and poor ergonomic processes.

Employees reported exposure concerns

- Employees most commonly reported concerns about workplace stress and exposure to dust, and various types of unanticipated hazards, including sharp objects, when processing donations.
- Employees reported that to process donations quickly, sometimes they would step into the large box of donations (referred to by employees as a “melon,” see Figure 1) to sort its contents. During this process, some employees reported being cut or stabbed with sharp objects. We did not observe this practice.
- Many employees reported dust exposure was a concern. We did not observe noticeable clouds of dust in the air, and the store did not have any processes that created dust. Based on our observations of the work environment and the type of dust likely found in the store, we believe employees are unlikely to be exposed to hazardous levels of dust.
- We observed that required personal protective equipment (such as cut-resistant gloves) was not available to some employees (not donation attendants) whose job tasks included accepting donations periodically throughout the day.



Figure 1. A large cardboard box referred to by employees as a “melon.” This melon is full of clothing that needs to be sorted. Photo by NIOSH.

To learn more about our results, go to [Section B in the Supporting Technical Information](#)

Our Recommendations

The Occupational Safety and Health Act requires employers to provide a safe workplace.

Benefits of Improving Workplace Health and Safety:

- | | |
|--|--|
| ↑ Improved employee health and well-being | ↑ Enhanced image and reputation |
| ↑ Better workplace morale | ↑ Superior products, processes, and services |
| ↑ Easier employee recruiting and retention | ↑ May increase overall cost savings |

The recommendations below are based on the findings of our evaluation. For each recommendation, we list a series of actions you can take to address the issue at your workplace. The actions at the beginning of each list are preferable to the ones listed later. The list order is based on a well-accepted approach called the “hierarchy of controls.” The hierarchy of controls groups actions by their likely effectiveness in reducing or removing hazards. In most cases, the preferred approach is to eliminate hazardous materials or processes and install engineering controls to reduce exposure or shield employees. Until such controls are in place, or if they are not effective or practical, administrative measures and personal protective equipment might be needed. Read more about the hierarchy of controls at <https://www.cdc.gov/niosh/topics/hierarchy/>.



We encourage the store to use the health and safety committee with appropriate employee and management representation to discuss our recommendations and develop an action plan. Both employee representatives and management representatives should be included on the committee. Helpful guidance can be found in “*Recommended Practices for Safety and Health Programs*” at <https://www.osha.gov/shpguidelines/index.html>.

Recommendation 1: Improve communication between employees and management about employee health and safety concerns, store management changes, and cleaning practices

Why? We identified several issues related to communication at the store during our evaluation. Employees reported a perceived lack of response and acknowledgement of concerns on health and safety matters from management. Employees expressed concern that this lack of communication prevented them from taking necessary actions to prevent or reduce potential exposures. Employees felt uncertainty about whether they could perform daily and weekly cleaning tasks safely if their production numbers were low. Employees reported a lack of communication about store management changes. Additionally, not all employees spoke English as a first language, so language barriers may exist.

How? At your workplace, we recommend these specific actions:



Ensure that employees know there is a formal procedure to report and document health and safety concerns.

- Ensure employees can submit a report confidentially.
- Listen actively to employees' concerns in a nonjudgmental manner. Employees should feel that their concerns are taken seriously.
- Inform employees regularly of exactly what steps are being taken to assess problems, what has been determined, and what remains to be determined. A combination of written reports and face-to-face meetings are valuable.



Allow time for the existing health and safety committee to discuss current health and safety concerns as well as the progress made on past concerns.

- Work with the health and safety committee to discuss workplace concerns and develop action plans for continued improvement of employee health and safety.
- Review Standard Operation Procedure 409, *Handling, Storage, and Disposal of Potentially Hazardous Materials*, during safety meetings to ensure employees are familiar with the steps to take if exposed to a hazardous item. Training should include a procedure for employees exposed to bloodborne pathogens.
- Schedule health and safety meetings throughout the day. Employees work staggered shifts and need to hear the same information.



Ensure that employees and managers know what daily and weekly cleaning is required.

- Ensure that managers are aware of the existing daily and weekly cleaning protocols, and train new managers about these protocols.
- Allow employees adequate time to complete cleaning tasks during their shifts.



Use a high efficiency particulate air filtered vacuum or wet cleaning method instead of dry sweeping.

- High efficiency particulate air (HEPA) filtered vacuums or wet cleaning methods are preferred to dry methods to prevent dust from becoming airborne. The chance for dust to become airborne increases during dry sweeping.



Notify employees about upcoming management changes as soon as feasible. This is one component of effective management-employee communication.



Inform employees about the available Employee Assistance Program to help with counseling and stress.

- Provide information about the availability and accessibility of the Employee Assistance Program (also called EAP) during new hire orientation and during annual training. Remind employees that EAP information can be found in the breakroom.



Provide procedure manuals and health and safety information in the employees' preferred languages.

- English was not the preferred language for some employees. These employees were sometimes unable to express details about workplace practices during our visit. Providing health and safety information in preferred languages will ensure a thorough understanding of workplace procedures and protocols.

Recommendation 2: Reduce the potential for exposures to sharp objects, bloodborne pathogens, and unknown hazards

Why? Occasionally sharp objects or other hazardous objects were discovered in the melons at the sorting stations. It appears that donations were not always thoroughly examined when initially accepted at the donation door. For example, bags of clothing containing potentially hazardous items are sometimes dumped into a melon without checking for hazardous items. Employees reported that they sometimes enter the melons because it was easier to sort donation items. Climbing into a melon with hazardous objects inside increases the potential to be harmed by those objects.

How? At your workplace, we recommend these specific actions:



Provide cut-resistant gloves for all employees working at sorting stations.

- Train employees on the need for gloves while sorting.
- Include this information during new hire orientation and annual training.
- Instruct supervisors to ensure employees always use proper gloves when required.



Thoroughly examine all donations after they have been accepted at the donation door to remove hazardous objects.

- Improve the current system by thoroughly sorting donations at the door. Rather than dumping a bag of clothes into the melon, remove each article of clothing to ensure there are no hidden sharp objects or other harmful objects.
- Include this information during new hire orientation and annual training for all employees and managers in the production area. Many of the production employees accept donations when the donation attendants are busy or short-staffed.



Discourage employees from entering melons.

- Employees who enter melons face potential exposures to hazards within donation items. Entering the melons also presents a fall risk because employees must climb over the sides of the melon using a step stool. Melons are not designed to be entered and step stools do not protect against fall hazards when using them to climb into the melon.
- Employees should know the importance of never entering the melons. Include this information in new hire orientation and during annual training.



Follow Oregon OSHA's requirements for workplaces with bloodborne pathogen exposures.

- Review the Oregon Occupational Safety and Health Administration's (OSHA) requirements related to creating a bloodborne pathogen written protocol, record-keeping, and training, and update the store's procedures to comply. This information can be found at <https://osha.oregon.gov/OSHARules/div2/div2Z-1030-bloodborne.pdf>.

Recommendation 3: Address other health and safety issues we identified during our evaluation

Why? A workplace can have multiple health hazards that cause employee illness or injury. Similar to the ones identified above, these hazards can potentially cause serious health symptoms, lower morale and quality of life for your employees, and possibly increase costs to your business. We saw the following issues at your workplace:

- Some employees wore filtering face piece respirators even though they were not required.
- Donation attendants operating pallet jacks did not wear safety-toed shoes.
- Pallet jacks did not have a horn or other warning device that could be used when moving pallets around the production area.
- Lighting in the tagging area was inadequate. Employees were observed squinting and leaning close to tags on clothes.
- Anti-fatigue mats were not large enough for the workstations and not always placed where the employees were standing.
- Pedestal fans were not easily turned on and required moving multiple melons in order to plug the fans in.
- Some training materials were not current.

Although they were not the focus of our evaluation, these issues may represent potential hazards which could cause harm to your employees' health and safety and should be addressed.

How? At your workplace, we recommend these specific actions:



Improve compliance with the voluntary use provisions of the respiratory protection standard.

- Ensure compliance with the voluntary use provisions of the OSHA respiratory protection standard (29 CFR 1910.134) if employees are allowed to wear filtering facepiece respirators. We found no evidence that respiratory protection should be required, but some employees were wearing N95 respirators. Key components of the voluntary use provisions are as follows:
 - The employer must determine that respirator use is not required.
 - The employer must provide the respirator users with the information contained in Appendix D of the OSHA respiratory protection standard ([Information for Employees Using Respirators When Not Required Under the Standard](#)).
 - Although facial hair is not prohibited when voluntarily using respirators, it is discouraged. Facial hair interferes with the fit of filtering facepiece respirators and reduces their effectiveness.



Provide safety-toed shoes for donation attendants.



Install a bell or horn on the pallet jacks to increase awareness of their movement throughout the production area.

- Train donation attendants on how and when to use the bell or horn. Include this information during new hire orientation and annual training.



Increase the amount of lighting in the tagging area to improve visual access to clothing tags.



Provide larger anti-fatigue mats at production workstations.

- Place anti-fatigue mats where the employees are standing. Use larger mats if employees are moving around the workstation so that they are not standing directly on the floor for long periods of time.
- Extend mats under work tables to prevent tripping hazards and maintain a flat standing surface.



Consider alternative fans to the ones currently located on the elevated shelves along the wall.

- Look into different fans that are either remotely operated or have a longer power cord. Either option will reduce or eliminate the need to move multiple melons each time the fans are powered on.



Ensure the building ventilation system can provide adequate heating and cooling to the production area.

- If the pedestal fans are being used for thermal comfort, investigate whether the ventilation system is providing adequately conditioned air in the production area.



Review and update all trainings. Ensure all trainings are the most current versions offered.

Supporting Technical Information

Evaluation of Ergonomics, Dust, and Unanticipated Hazards at a Donation and Retail Store

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Section A: Workplace Information

Building

The store consisted of a retail and a production side. On the retail side, employees were responsible for providing customer service, stocking inventory, and operating the cash register. On the production side, employees were responsible for donation intake and processing. The production area was a large open floorplan with workstations situated throughout the space. A storage closet, breakroom, manager's office, tagging area, and loading dock were situated around the production area.

Employee Information

Twenty-one employees were working on the day that we visited. The store was open for 12 hours, and all employees worked 8-hour shifts. There was no union at this store.

Employees worked in a variety of job titles including cashier, donation attendant, manager, production, and supervisor.

Process Description

Donation Intake

Donation attendants accepted donations from the public. After accepting the donation, attendants sorted the donation items into either large cardboard boxes (melons) or smaller plastic totes. Donation attendants moved melons to the appropriate area in the production side using pallet jacks. Some melons contained items that needed to be processed, and other melons were filled with items that could not be sold in the retail store.

Donation attendants were also responsible for loading and unloading trucks. It was reported that trucks arrived almost every day with supplies for the store. The truck driver dropped off one truck trailer with supplies from regional outlet locations and took another trailer that had been loaded with melons and other supplies from the store.

Production

Production was broken into two parts—soft line and hard line. Soft line production consisted of clothing and linens. Hard line production consisted of shoes, furniture, electronics, books, multimedia (e.g., CDs, DVDs, or videogames), and other nonclothing donation items.

Soft line production involved sorting through a melon of “raw” clothing items to determine suitability for retail. Items were hung on a rack if they were suitable for sale. Items that were unacceptable for sale at the store were placed in a different melon and shipped to a regional outlet store. After the soft line production employees sorted melons, the racks of acceptable items were brought to the tagging station and entered into a computer and tags were placed on each item.

The employees working in the hard line production have a similar process to the soft line employees. Employees pulled items from a raw melon, decided whether they were in acceptable condition, discarded unacceptable items, and tagged those that were acceptable.

Retail

Some production employees and donation attendants worked on the retail side at the beginning of the day to pull older stock off the shelves and clean up the store to get it ready to open to the public. After the store opened, employees in this part of the store were responsible for helping customers, stocking shelves, and operating the cash register. Sometimes they continued to pull older stock off the shelves or rearrange items in the retail area.

Section B: Methods, Results, and Discussion

Methods: Observations of Work Processes, Practices, and Conditions

We observed work processes, practices, and workplace conditions. Other activities included the following:

- Observed production and cleaning practices.
- Reviewed the availability, storage, and use of personal protective equipment (PPE).
- Measured workstation dimensions.

Results: Observations of Work Processes, Practices, and Conditions

- Workstations in the production area were adjustable, although employees reported that they had never asked for their workstation heights to be adjusted. Tools were required to make those adjustments. All workstations were approximately the same dimensions. Nine workstations sat in the production area: four soft line, three hard line, one media, and one tagging workstation. Eight of the nine workstations were approximately 40 inches tall. The remaining workstation was approximately 35 inches tall. The depth of the workstations was 30 inches. Each workstation in hard line production had a computer screen. This screen averaged 12.5 inches in height and was 7–20 inches away from the front edge of the workstation. The tagging workstation was 39 inches tall with a 15-inch tall computer screen. Wire racks at the soft line workstations had four shelves that were approximately 17, 32, 47, and 68 inches off the ground.
- Anti-fatigue mats were at all production workstations. The mats appeared to be in good condition. Some employees stood on the edges of the mats or directly on the floor.
- Management reported that melons were tipped on their sides to sort the donations at the bottom when it was almost empty. We did not observe employees tipping melons during our visit. A pair of supervisors did tip one melon to transfer its contents to a cart. Some employees reported that they did not tip the melons and instead used step stools and grabbing tools to access the items near the bottom of the melon. Some employees told us that they were more comfortable standing inside the melons to sort soft line items.
- Employees were able to sign out grabbing tools from the manager’s office. These tools were used to grip items in the melons and pull them within reach of the employee. This process required a lot of fast-paced repetitive motions and resulted in awkward postures, especially for shorter employees.
- We did not observe any employees tipping melons or using grabbing tools when working with books, shoes, or electronics. Some employees told us that grabbing tools were occasionally used.

- Some employees stood on step stools to gain access to the lower parts of the melons (Figure B1). We observed some employees standing on the stool, bending into the melon to grab an item, and then twisting to the workstation to process the item. This method of using the step stool caused the employees to have to bend and twist their body from the top of the stool.
- Gray plastic totes were stacked five totes high to store some of the hard line donations that were not placed into melons. The top box of the stack of five was above shoulder height.
- Three methods for working at the tagging station appeared to be used. The first involved leaving all clothes on the rack while flipping through the clothing items. The second involved removing each piece of clothing from the rack, inputting the information, and then returning it to the rack. The third involved pulling multiple hangers off the rack at one time, layering them at the base of the computer screen, and inputting the batch before hanging them up on the rack again. There appeared to be insufficient lighting even though there was a desk lamp at this station. We observed most employees at this workstation squinting and leaning close to the tags on the clothing while inputting information.
- First shift employees gathered for a briefing with the manager at the beginning of each day. After the briefing, they participated in a group stretching activity before starting their work for the day.
- Production employees had the option to wear no gloves, vinyl gloves, or polyurethane-coated general purpose gloves. Donation attendants were required to wear cut-resistant work gloves for all their tasks. The cut-resistant gloves conformed to ASTM International F1790 (formerly American Society for Testing and Materials) Standard Test Method for Measuring Cut Resistance of Materials Used in Protective Clothing with CPP Test Equipment for North American Performance Level 4. This means that the gloves are appropriate for high cut hazards like handling sheet metal or broken glass.
- Some production employees wore filtering facepiece respirators even though they were not required. The store did not provide these respirators.
- Pallet jacks were used by donation attendants to move pallets holding melons around the production area and on and off trucks. The walkways around workstations were wide enough to accommodate a pallet but not much wider. Employees needed to move out of the walkway to



Figure B1. An employee using a step stool to access a melon in the soft line production area. Photo by NIOSH.

allow pallets to pass through. Some employees told us they were sometimes unaware when a pallet was moving past their workstations. These employees were concerned that they may be hit by a pallet if they quickly moved away from their workstations. The donation attendants generally announced when they were moving pallets behind production employee workstations, but employees told us it was sometimes difficult to hear or that the donation attendants did not always make that announcement.

- Donation attendants were responsible for loading and unloading trucks sent by the regional outlet locations. Store managers could order a truck to arrive in the morning or the afternoon but there was no specific time that the trucks would arrive. We were told that the truck dispatchers did not provide a delivery window and sometimes could not even confirm the day that the truck would arrive. A truck trailer was always left at the loading dock at the store. We observed that when the truck arrived, donation attendants needed to rush to load the truck trailer that was already at the store with melons and totes. While this was happening, the new truck trailer was backed up to the second loading dock door and unhitched from the truck. The truck driver could not leave the store before the first truck trailer was loaded.
- Donation attendants were occasionally busy when donations arrived at the donation door. The nearest production employee or manager would step in to accept the donation. Employees and managers who stepped in to help with accepting donations did not put on the cut-resistant gloves that donation attendants were required to wear when accepting donations. It did not appear that the cut-resistant gloves were available at the door for employees who were not donation attendants.
- Hazardous materials (e.g., sharp objects, fuel, medications, cleaning chemicals) were separated into different plastic totes at the donation door. When the hazardous materials totes were full, they were closed and moved to be loaded onto the next available truck heading to a regional outlet store (Figure B2).
- Employees told us that they tried to wipe down their workstations and sweep the floors in the production area daily. Workstations were wiped with surface/glass cleaner and microfiber rags. The floors were dry swept with a push broom. We heard that sometimes the daily and weekly cleaning was cancelled in favor of processing more donations. We learned that floors are mopped weekly, but we did not observe this during our visit.
- Most drivers left the engine running when dropping off donations at the donation door. During our visit, there was a noticeable movement of air from outside the building into the production



Figure B2. The hazardous materials totes located at the donation door. Photo by NIOSH.

area when the donation door was opened. It is likely that vehicle exhaust odors could be noticeable to employees when accepting donations, especially during busy times.

- Two pedestal fans sat in the production area (Figure B3). The fans were on either end of a shelf that was about halfway up one wall in the production area. Two rows of melons sat along the entire wall, so it was very difficult to access the fans. Employees told us that multiple melons must be moved each time the fans needed to be plugged in. The nearest electrical outlet was approximately halfway up the wall and located behind the two rows of melons. Employees told us that the fans were used for thermal comfort when the production area became warm during the summer months.
- Some employees reported that the wheels and castors on workstations and clothing racks were sticking or difficult to move around. We were told by management that there was no systematic preventative maintenance plan, and that all issues with wheels and castors were handled through a work order system. Employees reported that they felt the work order system took too long to complete work orders.
- We learned that some employees felt like safety concerns were not being addressed. They perceived a lack of communication from management about progress being made on previously reported concerns. Management informed us that there was dedicated time during each health and safety meeting to review concerns from the previous meeting and provide updates.



Figure B3. An unplugged pedestal fan sits on one end of a shelf that is full of boxes. Melons filled with donations crowd the floor underneath. The electrical outlet can be seen to the left of the fan several feet away. Photo by NIOSH.

Methods: Medical Interviews

We held confidential interviews with all 21 employees working at the store on the day of our visit. Questions about daily work activities, cleaning procedures, PPE use, health and safety concerns, job-related health symptoms, and workplace training were asked during the interviews.

Results: Medical Interviews

Of the 21 employees, 14 were female. The median age of the employees was 49 (range: 22–74) years old. Employees worked a median of 40 (range: 25–44) hours a week and had worked at the store a median of 1 year and 9 months (range: 4 months–17 years). Most employees ($n = 11$) worked in production in the hard lines and soft lines processing areas (Table C1).

Using an open-ended question, we asked about health concerns. Employees most commonly reported concerns about ergonomics and heavy lifting (n = 7), injuries (n = 6), and workplace stress (n = 5) (Table C2). The five employees who reported workplace stress attributed it to a lack of communication and management changes. Employees were also explicitly asked about certain health symptoms (Table C3). The most commonly reported health symptoms were joint and muscle pain (n = 16), fatigue (n = 9), and irritated eyes (n = 9). Employees attributed their joint and muscle pain to heavy lifting, standing, and using the “grabbers” to sort through donations.

We also asked about exposure concerns using an open-ended question. The most commonly reported exposure concerns were sharp objects (n = 11), dust (n = 9), and unanticipated exposures while sorting donations (n = 6) (Table C4). Employees reported stepping into melons to sort through donations. Per the employees, this practice made the sorting process more efficient, but employees had been exposed to sharp objects and other unanticipated hazards while performing this practice. Employees also reported being exposed to car exhaust, dim lighting, mold, needles, feces- and urine-soiled items, and rotten food while sorting through donations.

Employees reported receiving health and safety trainings. The most reported trainings included weekly safety meetings, lifting techniques, and bloodborne pathogens (BBP). Seventeen employees reported having cleaning duties.

All employees communicated with us in English during our visit. However, English was a second language for some employees, and they were unable to express certain details during the medical interview.

Methods: Document Review

We reviewed the following documents prior to our visit:

- New employee health and safety training
- Injury reports
- Health and safety meeting topics

Results: Document Review

New Employee Health and Safety Training

We reviewed training that new employees received upon hire, which included the following:

- When employees are exposed to BBP, Oregon OSHA requires a BBP written plan, recordkeeping, and training. These requirements can be found at <https://osha.oregon.gov/OSHArules/div2/div2Z-1030-bloodborne.pdf>. The BBP training used at this store was written by Oregon OSHA. Per the health and safety manager, employees also must watch a video about BBP. However, the training that was provided to us is not the most recent version on the Oregon OSHA website. The current training on the website is available as an online course in English and Spanish. The training also did not include a store-specific procedure for employees to follow if exposed to a BBP.

- Oregon OSHA wrote the hazard communication training used at this store. However, the training that was provided to us is not the most recent version on the Oregon OSHA website. Although the training gave an overview of hazard communication, it did not list specific hazards associated with working at this store.
- The 2009 *Swine Influenza* information handout can be removed from training materials because the pandemic is over.
- Standard Operating Procedure (SOP) 488, *Safe Handling of Heavy and/or Bulky Objects*, addresses lifting heavy items by oneself or with others and best practices to prevent injuries. Three other handouts give examples with visuals of how to properly lift items and different exercises and stretches that can be performed before work and during breaks to improve core and muscle tone and prevent injuries. New employees must also watch a video about proper lifting techniques.
- Donation attendants accepted or denied donations from the public. They received the donation attendants training booklet that explains procedures and roles and responsibilities in a workbook format. They also received a list of unacceptable donations and a script on how to politely decline unacceptable donations.

Injury Reports

We reviewed OSHA's Form 300 Logs of Work-Related Injuries and Illnesses during 2014 through 2018. During this time, the store had 15 OSHA reportable injuries and illnesses, 14 of which were related to injuries.

Health and Safety Meeting Topics

The store had a detailed agenda and list of topics to be covered during health and safety meetings. However, we did not receive the actual training curriculum for these the topics, except for the ones listed above.

Discussion

We identified several issues related to communication at the store during our evaluation. During the medical interviews, multiple employees reported workplace stress related to management changes and lack of communication. Days prior to our visit, management announced that the store manager would be transferring to a new store in the area. This store manager was well liked and had only been at this location for a few months. Employees reported that there was a lack of communication regarding management changes and they felt anxious about having a new store manager. During these interviews, we informed employees about EAP, which is available to help them with counseling and stress. Although a brochure for the EAP was in the breakroom, few workers knew they had access to that benefit. Employees also felt that progress related to safety concerns was not being communicated. Through workplace investigations, NIOSH investigators have found that where there is poor communication, there is also reduced job satisfaction. These issues may be related to personnel organizational factors, conflict among personnel, or lack of job security. Providing feedback, involving

employees in decision making, and allowing employees to provide input to the employer are associated with greater job satisfaction and positive perceptions of work [Kain and Jex 2010].

Employees reported concerns about exposures to unanticipated hazards. They reported concerns about sharp objects, feces- and urine-soiled clothing, and mold most often. Hazardous items are addressed in SOP 409, *Handling, Storage, and Disposal of Potentially Hazardous Materials*. For example, the SOP lists the type of PPE required for handling different hazardous materials. The handling of all hazardous material requires gloves, with some materials (paints, fuels, and pesticides) requiring safety glasses and/or a face-shield. The BBP training also addressed what types of PPE should be used to prevent exposure to blood and other potentially infectious material. Because employees may be exposed to sharp objects and other hazardous material unexpectedly, employees should be trained regularly on the proper steps to take to help prevent injuries and properly use PPE, along with what actions to take if exposed to hazardous material.

Some employees attributed their joint and muscle pain and fatigue to heavy lifting and poor ergonomic processes. Injuries were the most commonly reported item on the OSHA Logs. Because the anti-fatigue mats were either too small or in the wrong location, employees usually were standing on the floor or only partially on the mats. All anti-fatigue mats should cover the entire area where the employee stands at the workstation to ensure proper protection. Further, incorrectly located mats present tripping hazards and do not provide pain and fatigue relief to the employees.

Although we did not observe it, tipping the melons to access donations in the bottom is a better method than standing on a step stool to reach the bottom or standing inside the melon itself. Any employee standing inside the melon is potentially exposed to unknown hazards such as sharp objects. Standing inside of a melon also presents a fall hazard when entering and exiting the melon. The sorting process begins at the donation door, but it is not completely thorough, and occasionally hazardous items could be mistakenly placed into a soft line donation melon. Employees are better able to identify hazardous items when they are not standing inside the melon. Improving the donation door process would lower these risks.

While dust and small debris was visible on workstations and on the production area floor, we observed no noticeable dust clouds in the air, and the store was not engaged in dust-generating processes. However, employees reported seeing occasional dust clouds. This dust is most likely generated from a combination of sources including (1) house dust that has accumulated on donation items, (2) outside dust migrating inside the store through open doors during donation drop off, (3) a buildup of dust when cleaning protocols are not followed, and (4) the use of dry sweeping when cleaning the floors.

We observed employees wiping down workstations and dry sweeping parts of the production floor during our visit, but we did not see them sweep the entire floor. Dry sweeping increases the chance for dust to become airborne, so it's possible that visible dust clouds could be seen in the air if the entire production floor was swept using a push broom. Using HEPA-filtered vacuums or wet-cleaning methods are preferred to dry methods to prevent dust from becoming airborne.

Exposure to “inert” or nuisance dusts and “particulate not otherwise regulated” could cause lung disease and eye, skin, and respiratory irritation at levels above occupational exposure limits (OELs) [OSHA 2018]. OELs suggest levels of exposure that employees may be exposed to for 8 hours a day,

40 hours a week, over a working lifetime. Some OELs are legally enforceable limits; others are recommendations. NIOSH does not have an OEL for this type of dust. OSHA has enforceable permissible exposure limits for total dust at 15 milligrams per cubic meter of air and respirable dust at 5 milligrams per cubic meter of air. Based on our observations of the work environment and the type of dust likely found in the store, we believe employees are unlikely to be exposed to levels of dust above an OEL.

Although we did not measure lighting levels, employees stated that the lighting at the tagging workstation was too dim and that they had trouble seeing tags when tagging clothing items. The OSHA eTools website for computer workstations recommends workstation lighting between 20–73 foot-candles depending on the type of task and monitor used [OSHA 2019]. Good lighting design should include both human perception and numerical standards. The selection of lighting in the workspace should support the work but consider user satisfaction to facilitate work performance. Lower wattage lights or warmer tones may help with employee satisfaction.

Limitations

Our observations and interviews can only document information on the day that we were at the store. Additionally, because the interviews asked employees about past workplace processes, practices, and conditions, as well as past exposures and health effects, these results are subject to recall bias. Some employees were not able to express certain details during the medical interviews because English was not their preferred language, and we did not have interpreters available. Therefore, we may not have obtained all relevant information during the medical interviews.

Conclusions

We found communication gaps between employees and management. Employees reported health problems they believed were work-related, and they were concerned about stress, sharp objects, and dust in the workplace. We recommended ways to improve communication between employees and management. We also recommended methods for better cleaning practices, and for improving the training around potential hazards, EAP access, and the initial sorting of donations at the donation door.

Section C: Tables

Table C1. Employee characteristics (n = 21)

Characteristic	Number of employees
Gender	
Female	14
Male	7
Age	
Median years (range)	49 (22–74 yrs)
Length of employment at this store	
Median years (range)	1 yr 9 mos (4 mos–7 yrs)
Hours per week worked	
Median hours (range)	40 (25–44 hrs)
Job title	
Cashier	3
Donation attendant	2
Manager/supervisor	3
Production associate	11
Other/unknown	2

Table C2. Reported health and safety concerns (open-ended question) (n = 21)

Health concerns	Number of employees
“Grabber” device	4
Ergonomics/Heavy lifting	7
Injuries	6
Other (ex: nausea, standing, and lack of space)	3
Poor temperature control	3
Skin irritation	3
Stress	5

Table C3. Employees' reported (yes/no) health concerns
(n = 21)

Health concerns	Number of employees
Allergies	7
Breathing problems	2
Chest pain	0
Common cold	4
Fatigue	9
Irritated eyes	9
Joint or muscle pain	16
Respiratory infections	1

Table C4. Employees' reported exposure concerns
(open-ended question) (n = 21)

Exposure concerns	Number of employees
Body fluids	4
Broken fluorescent light bulbs	2
Car exhaust	2
Dim lighting	2
Donations (unanticipated hazards)	6
Dust	9
Heavy items	4
Mold	5
Other (moving totes, electronics, etc.)	3
Sharp objects	11
Temperature changes	3

Section D: References

Discussion

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