U.S. Department of Labor Occupational Safety and Health Administration 1387 S. Vinnell Way Suite 218 Boise, ID 83709



January 31, 2023

Amazon.com Services, LLC, dba Amazon Fulfillment Center BOI2 and its successors

Attn: Nick Govin (Site WHS Manager) 5295 E. Franklin Road Nampa, ID 83687

Re: Inspection #1611861

Mr. Nick Govin, Site WHS Manager:

An inspection of your workplace at 5295 E. Franklin Road, beginning on August 1, 2022, was conducted pursuant to a referral filed with the Boise Area OSHA Office. The referral alleged the following with respect to ergonomics:

- Workers face immense pressure to meet pace of work and production quotas at the risk of sustaining musculoskeletal injuries, which are often acute,
- Evidence that injuries may not have been reported, because Amazon's on-site first-aid clinic, Wellness Center, is not staffed appropriately, which our investigation has revealed would otherwise be an important mechanism by which Amazon gathers injuries to report.

The investigation included (1) a review of OSHA 300, 300A, and 301 injury and illness recordkeeping forms for the years since the facility started operation until the date of the inspection, (2) private employee interviews, (3) management interviews, (4) review of your company's overall ergonomic hazard control efforts, (5) review of employee medical documents including first aid logs and treatment logs, (6) analysis of work performed in several inbound and outbound process paths, video of employees performing tasks in several inbound and outbound process paths, and analysis of ergonomic risk factors using the revised NIOSH lift equation<sup>1</sup>, the lumbar motion monitor<sup>2</sup>, ACGIH hand activity TLV, and the ACGIH Upper Limb Localized Fatigue TLV<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup> Applications Manual for the Revised NIOSH Lifting Equation, https://www.dir.ca.gov/dosh/dosh publications/mmh.pdf

<sup>&</sup>lt;sup>2</sup> Marras, W. S., Sudhakar, L. R., & Lavender, S. A. (1989). Three Dimensional Measures of Trunk Motion Components during Manual Materials Handling in Industry. Proceedings of the Human Factors Society Annual Meeting, 33(11), 662-666. https://doi.org/10.1177/154193128903301108 and Marras, W.S., Allread, W. G., Burr, D.L., Fathallah, F. (2000). Prospective validation of a low-back disorder risk model and assessment of ergonomic interventions associated with manual materials handling tasks. Ergonomics. 43. 1866-86. 10.1080/00140130050174518

<sup>&</sup>lt;sup>3</sup> American Conference of Governmental Industrial Hygienists (ACGIH). Threshold limit values and biological exposure indices for 2022. Cincinnati: ACGIH. www.acgih.org

## **Findings**

Based on the review of the injury and illness information, interviews with employees, and ergonomic risk assessments, employees are exposed to a high risk of serious musculoskeletal disorders when routinely working in the following process paths as presented in the table below:

Site: BOI2	Back Risk Eval	Back Risk Evaluation Tool		Upper Extremity Risk Evaluation Tool	
Process Path	NIOSH Lift Equation	Lumbar Motion Monitor	ACGIH Hand Activity TLV	ACGIH Upper Limb Localized Fatigue TLV	
AFE Rebin	2.2	95%	2.6	1.8	
AFE Pack	1.5	-	2.6	2.4	
Decant Line	2.1	-	2.8	3.9	
Pick	2.2	-	1.4	1.6	
Stow	1.8	-	1.4	2.2	
	Red indicates a high evaluation tool	n risk for musculo	skeletal disorders b	ased on the score of the risk	

This hazard alert letter identifies jobs with a high level of ergonomic risk that are in addition to the jobs OSHA has recently listed in the 5(a)(1) violation (Fluid Unload, Decant Pallet, Stow Downstack, Sort, Fluid Load). While some ergonomic risk factors can be reduced or eliminated by implementing a single means of abatement, in most cases a process will provide the most effective method of addressing the risk factors. Amazon recognizes feasible mitigation strategies, including but not limited to, those outlined in the NIOSH guidance on Elements of Ergonomics Programs, as evidenced by inclusion of those and many other methods in the Amazon document North American WHS Ergonomics Procedure North America, Published: March 20th, 2020, Effective: March 20th, 2020. Elements of an effective ergonomics program include, but are not limited to the following:

- 1. Worksite analysis to recognize and identify existing manual handling hazards in the workplace and to develop and implement an effective ergonomics program. Conduct an ergonomic assessment by a certified professional ergonomist, or other qualified professional. An analysis should include an assessment with validated methods [i.e., NIOSH lifting equation, the lumbar motion monitor, ACGIH TLV for Hand Activity and Upper Limb Localize Fatigue or other validated ergonomic risk assessment methods for manual handling tasks. and employee participation (e.g., surveys, interviews). Periodic ergonomic surveys of employees and risk assessment of process paths in the workplace should be conducted at appropriate intervals or when changes to the work may change the ergonomic risk, to evaluate effectiveness of controls.
- 2. Training and education for exposed employees, including methods to evaluate the effectiveness of the training. Re-training should be done annually, or as operations change. Training should be done in a manner understandable by all employees (in a language that they speak) and address hazards associated with the work they perform, early recognition of musculoskeletal injuries and illnesses, the ergonomic risk factors associated with their job(s), and how to prevent MSDs. The training should include the elements of the ergonomics program and the affected employee's role in the

program. Training should also be provided to operations area managers and process assistants as well as First Aid staff. The supervisors' training program should allow recognition of ergonomic risk factors, early signs of MSDs, and how to respond when risk factors are observed or when symptoms are reported. The training program should include the establishment's health care providers to ensure they are able to recognize symptoms of MSDs and are familiar with appropriate protocols for treatment of MSDs. Educational material or training on ergonomics should be provided to people responsible for designing jobs and buying equipment, tools, workstations, and parts.

- 3. Hazard prevention and control that includes the identification of paths with ergonomic risk factors and engineering, administrative, and work practice controls to materially reduce the hazard. The following engineering, administrative and work practice controls are feasible and may be utilized to materially reduce the hazard at this workplace:
  - a. Engineering controls are designed by a certified professional ergonomist or other qualified professional and may include workstation redesign, tool and handle redesign, and use of mechanical lifting aids.
    - 1. AFE Rebin and AFE Pack combine process paths into a single path
      - a. Design platforms that accommodate boxes and envelopes next to but lower than the conveyance system that delivers the grey bins; employees will load boxes on platforms;
      - b. Slide tote off conveyance onto a mechanized platform that tilts and dumps contents into box or envelope;
      - c. Platform with box/envelope should be mechanized so trigger by employee dumps it into a conveyor under existing tote conveyor; and
      - d. Tape and labeling should be mechanized
    - 2. AFE Pack (if recommendations above are not incorporated into the process path)
      - a. Design packing station to face the AFE Wall a short distance from it; mechanize item pushing out of the cubby by employee trigger onto chute to pack workstation;
      - b. Pack workstation should be equipped with roller conveyance to move packages from workstation onto larger conveyance;
      - c. Eliminate use of lower (floor) and upper bins;
      - d. Provide adjustable height workstations; and
      - e. Automate taping, labeling on conveyance to provide recovery time between packages

#### 3. Decant Line

- a. Worktables should be adjustable to accommodate employees who perform the task;
- b. Worktables should allow for sliding the packages off the conveyor and onto the worktables using a smooth sloped connection or rollers; and
- Redesign station to allow for tipping of contents from box into yellow tote versus an employee living and dumping boxes or handling each individual item

## 4. Stow

- a. Design process so that hazard assessment is within acceptable limits (Peak Force Index, (PFI  $_{TLV}$ ) < 1.0) by:
  - a. Reducing pace of work to achieve a Hand Activity Level (HAL) scale value of 2.7 or less; or
  - b. Keep the 90<sup>th</sup> percentile of loads handled less than 3.6lbs
- b. Design storage so that heavier items are stored in shelving unit near 30" height from floor;
- c. Eliminate stowing items in the bottom shelves to reduce torso bending. The lowest shelf should be at least 15" above the floor;
- d. Use a separate shelving unit or pick system specifically designed to accommodate heavier items; and
- e. Provide a lift assist or facilitate slides for heavy height items into shelving unit

## 5. Pick

- a. Eliminate use of top shelves and very bottom shelves to reduce squatting and overhead lifts;
- b. Design job to maintain pace of work within acceptable limits of the validated ergonomics risk assessment tool;
- c. Provide a ceiling for the pace of work; and
- d. Change gamificiation system to eliminate incentives for excessively paced work
- b. Administrative controls are implemented which reduce the duration, frequency, and severity of exposure to ergonomic risk factors. These controls may include job rotations that reduce ergonomic risk, reduction of repetitions, multiple person lifts, and maintenance of related equipment.

## 1. Decant Line

a. Optimize use of more stations/employees to reduce the overall pace of work to reduce ergonomic risk assessments to acceptable levels.

#### 2. Stow

- a. Reduce duration of time on this process path
- c. Work practice controls are implemented which include work techniques, new employee conditioning, and reduction of weight lifted.

## 1. AFE Rebin

a. Use wearable scanner to avoid sustained hand exertions from handheld scanner

## 2. AFE Pack

a. Use wearable scanner to avoid sustained hand exertions from handheld scanner

## 3. Decant Line

- a. Use a wearable scanner on the finger or hand or have wrap around or machine vision bar code scanners; and
- b. Use a vacuum lift for packages that exceed 13lbs
- 4. Medical management Medical management includes protocols for treating musculoskeletal disorders (MSDs) that are developed and reviewed by a healthcare professional who is experienced and licensed in the diagnosis and treatment of MSDs. The protocols should address early recognition, evaluation, and referral of MSD cases. Healthcare personnel who treat employees with MSD symptoms must be practicing

within the scope of their license and they must be trained to follow the MSD protocols. Systematic reviews of incident trends and worksite reviews for ergonomic risk and root cause analysis should be reported to operations management. The medical staff and managers should eliminate policies that discourage employees from reporting injuries and symptoms,

- 5. Program evaluation. The elements of the ergonomics program; management leadership, employee participation, training, hazard identification and control, and medical management should be evaluated periodically (at least annually) to compare the ergonomics program policies and goals to the practices at the site,
- 6. Personnel responsible for OSHA recordkeeping must be trained in the requirements of OSHA recordkeeping. The entries on the OSHA 300 and 301 forms should be periodically verified by a knowledgeable person.

To evaluate your efforts in reducing these hazards, please send me a letter detailing the actions you have taken, or plan to institute, to address our concerns within 60 days of the date of this correspondence. We will review your response and determine if a follow up is needed to further evaluate your workplace, including any recommended/implemented controls.

Under OSHA's current investigation procedures, we may visit your work site within six months to examine the conditions noted above. Enclosed is a list of available resources that may be of assistance to you in preventing work-related injuries and illnesses in your workplace.

Thank you in advance for your attention to these concerns. Working together, we can move closer to achieving the goal of workplaces free of preventable hazards. If you have any questions, please feel free to contact the Boise Area OSHA Office at (208) 321-2960.

Sincerely,

David G Kearns
Area Director

## **RESOURCES**

OSHA 3220 Pocket guide, Worker Safety Series, Warehousing, <a href="https://www.osha.gov/sites/default/files/publications/3220">https://www.osha.gov/sites/default/files/publications/3220</a> Warehouse.pdf

NIOSH Elements of Ergonomics Programs, www.cdc.gov/niosh/topics/ergonomics/ergoprimer/default.html

Applications Manual for the Revised NIOSH Lifting Equation, <a href="https://www.cdc.gov/niosh/docs/94-110/default.html">https://www.cdc.gov/niosh/docs/94-110/default.html</a>

CAL/OSHA Ergonomics Guidelines for Manual Material Handling, <a href="https://www.dir.ca.gov/dosh/dosh">https://www.dir.ca.gov/dosh/dosh</a> publications/mmh.pdf

2021 Threshold Limit Values (TLVs®) and Biological Exposure Indices (BEIs®) of the American Conference of Governmental Industrial Hygienists (ACGIH®), <a href="https://www.acgih.org/TLV/">https://www.acgih.org/TLV/</a>.

## **U.S. Department of Labor**

Occupational Safety and Health Administration Denver Area Office 1391 Speer Blvd, Suite 210 Denver, CO 80204



January 31, 2023

Amazon.com Services LLC, dba DEN5 Amazon Sortation Center Attn: Anthony Spinelli (General Manager) 19799 E 36<sup>th</sup> Dr. Aurora, CO 80011

Re: Inspection #1611567

Mr. Anthony Spinelli, General Manager:

An inspection of your workplace at 19700 E. 36<sup>th</sup> Drive, Aurora, CO 80011, beginning on August 1, 2022, was conducted pursuant to a referral filed with the Denver Area Office. The referral alleged the following with respect to ergonomics:

- Workers face immense pressure to meet pace of work and production quotas at the risk of sustaining musculoskeletal injuries, which are often acute,
- Evidence that injuries may not have been reported, because Amazon's on-site first-aid clinic ("AmCare") is not staffed appropriately, which our investigation has revealed would otherwise be an important mechanism by which Amazon gathers injuries to report.

The investigation included (1) a review of OSHA 300, 300A, and 301 injury and illness recordkeeping forms for the years since the facility started operation until the date of the inspection, (2) private employee interviews, (3) management interviews, (4) review of your company's overall ergonomic hazard control efforts, (5) review of employee medical documents including first aid logs and treatment logs, (6) analysis of work performed in several inbound and outbound process paths, video of employees performing tasks in several inbound and outbound process paths, and analysis of ergonomic risk factors using the revised, the State of Ohio Bureau of Worker's Compensation Push/Pull guidelines.<sup>1</sup>, and the Shoulder Tool.<sup>2</sup>.

## **Findings**

Based on the review of the injury and illness information, interviews with employees, and ergonomic risk assessments, employees are exposed to a high risk of serious musculoskeletal disorders when routinely working in the following process paths:

<sup>1</sup> https://www.bwc.ohio.gov/employer/programs/safety/PushPullGuide/PushPullGuide.aspx, accessed 11/18/2022

<sup>&</sup>lt;sup>2</sup> David Rempel & Jim Potvin (2022) A design tool to estimate maximum acceptable manual arm forces for above-shoulder work, Ergonomics, 65:10, 1338-1351, DOI: 10.1080/00140139.2022.2030806

Site: DEN5	Back Risk Evaluation Tool	Neck/Shoulder/Upper Arm	
<b>Process Path</b>	OBWC Push/Pull Limit*	Shoulder Design Tool	
Staging	Above pull threshold		
AR Container Build		Above lift force threshold	
	Red indicates a high risk for musculoskeletal disorders based on		
	the score of the risk evaluation tool.		

\*OBWC: Ohio Board of Worker Compensation Push/Pull Guidelines

This hazard alert letter identifies jobs with a high level of ergonomic risk that are in addition to the jobs OSHA has recently listed in the 5(a)(1) violation (Fluid Unload East and West, Non-Con Induct, Non-Con Build and Manual Build A-E). While some ergonomic risk factors can be reduced or eliminated by implementing a single means of abatement, in most cases a process will provide the most effective method of addressing the risk factors. Amazon recognizes feasible mitigation strategies, including but not limited to, those outlined in the NIOSH guidance on Elements of Ergonomics Programs, as evidenced by inclusion of those and many other methods in the Amazon document North American WHS Ergonomics Procedure North America, Published: March 20th, 2020, Effective: March 20th, 2020. Elements of an effective ergonomics program include, but are not limited to the following:

- 1. Worksite analysis to recognize and identify existing manual handling hazards in the workplace and develop an effective ergonomics program. Conduct an ergonomic assessment by a certified professional ergonomist, or other qualified professional. An analysis should include an assessment with validated methods [i.e., NIOSH lifting equation, the lumbar motion monitor, ACGIH TLV for Hand Activity and Upper Limb Localize Fatigue or other validated ergonomic risk assessment methods for manual handling tasks. and employee participation (e.g., surveys, interviews). Periodic ergonomic surveys of employees and risk assessment of process paths in the workplace should be conducted at appropriate intervals or when changes to the work may change the ergonomic risk, to evaluate effectiveness of controls,
- 2. Training and education for exposed employees, including methods to evaluate the effectiveness of the training. Re-training should be done annually, or as operations change. Training should be done in a manner understandable by all employees (in a language that they speak) and address hazards associated with the work they perform, early recognition of musculoskeletal injuries and illnesses, the ergonomic risk factors associated with their job(s), and how to prevent MSDs. The training should include the elements of the ergonomics program and the affected employee's role in the program. Training should also be provided to operations area managers and process assistants as well as First Aid staff. The supervisors' training program should allow recognition of ergonomic risk factors, early signs of MSDs, and how to respond when risk factors are observed or when symptoms are reported. The training program should include the establishment's health care providers to ensure they are able to recognize symptoms of MSDs and are familiar with appropriate protocols for treatment of MSDs. Educational material or training on ergonomics should be provided to people responsible for designing jobs and buying equipment, tools, workstations, and parts,
- 3. Hazard prevention and control that includes the identification of paths with ergonomic

risk factors and engineering, administrative, and work practice controls to materially reduce the hazard.

- a. Engineering controls are designed by a certified professional ergonomist or other qualified professional and may include workstation redesign, tool and handle redesign, and use of mechanical lifting aids.
- b. Administrative controls are implemented which reduce the duration, frequency, and severity of exposure to ergonomic risk factors. These controls may include job rotations that reduce ergonomic risk, reduction of repetitions, multiple person lifts, and maintenance of related equipment.
- c. Work practice controls are implemented which include work techniques, new employee conditioning, and reduction of weight lifted,
- 4. Medical management. Medical management includes protocols for treating musculoskeletal disorders (MSDs) that are developed and reviewed by a healthcare professional who is experienced and licensed in the diagnosis and treatment of MSDs. The protocols should address early recognition, evaluation, and referral of MSD cases. Healthcare personnel who treat employees with MSD symptoms must be practicing within the scope of their license and they must be trained to follow the MSD protocols. Systematic reviews of incident trends and worksite reviews for ergonomic risk and root cause analysis should be reported to operations management. The medical staff and managers should eliminate policies that discourage employees from reporting injuries and symptoms,
- 5. Program evaluation. The elements of the ergonomics program; management leadership, employee participation, training, hazard identification and control, and medical management should be evaluated periodically (at least annually) to compare the ergonomics program policies and goals to the practices at the site,
- 6. Personnel responsible for OSHA recordkeeping must be trained in the requirements of OSHA recordkeeping. The entries on the OSHA 300 and 301 forms should be periodically verified by a knowledgeable person.

The following engineering, administrative and work practice controls are feasible and may be utilized to materially reduce the hazard at this workplace:

## 1. Process Path: Staging

- Use powered pallet jacks to remove pallets and carts
- Clear debris from trailers before loading and unloading
- Implement a cart and pallet jack wheel maintenance program
- Decrease weight load on pallets and carts

## 2. Process Path: AR Container Build

- Modify shuttles to reduce the lift height to 48" or less
- Modify equipment so that packages slide directly into shuttles and do not need to be handled (this has been done for some chutes)
- Provide platforms for workers to stand on so the height from the top of the platform to the top of the shuttle is 48" or less.

To evaluate your efforts in reducing these hazards, please send me a letter detailing the actions you have taken, or plan to institute, to address our concerns within 60 days of the date of this correspondence. We will review your response and determine if a follow up is needed to further evaluate your workplace, including any recommended/implemented controls.

Under OSHA's current investigation procedures, we may visit your work site within six months to examine the conditions noted above. Enclosed is a list of available resources that may be of assistance to you in preventing work-related injuries and illnesses in your workplace.

Thank you in advance for your attention to these concerns. Working together, we can move closer to achieving the goal of workplaces free of preventable hazards. If you have any questions, please feel free to contact the Area Office at 303-844-5285 at 1391 Speer Blvd, Suite 210, Denver, CO.

Sincerely,

Amanda S. Kupper

**Amanda Kupper** 

Area Director

# **RESOURCES**

OSHA 3220 Pocket guide, Worker Safety Series, Warehousing, <a href="https://www.osha.gov/sites/default/files/publications/3220\_Warehouse.pdf">https://www.osha.gov/sites/default/files/publications/3220\_Warehouse.pdf</a>

NIOSH Elements of Ergonomics Programs, www.cdc.gov/niosh/topics/ergonomics/ergoprimer/default.html

Applications Manual for the Revised NIOSH Lifting Equation, <a href="https://www.cdc.gov/niosh/docs/94-110/default.html">https://www.cdc.gov/niosh/docs/94-110/default.html</a>

CAL/OSHA Ergonomics Guidelines for Manual Material Handling, <a href="https://www.dir.ca.gov/dosh/dosh\_publications/mmh.pdf">https://www.dir.ca.gov/dosh/dosh\_publications/mmh.pdf</a>

2021 Threshold Limit Values (TLVs®) and Biological Exposure Indices (BEIs®) of the American Conference of Governmental Industrial Hygienists (ACGIH®), <a href="https://www.acgih.org/TLV/">https://www.acgih.org/TLV/</a>.

## **U.S. Department of Labor**

Occupational Safety and Health Administration 401 New Karner Road, Suite 300 Albany, NY 12205



February 1, 2023

Amazon.com Services LLC – ALB1 Attn: Nick Schlatz, Operations Manager Site Leader 1835 U.S. 9 Castleton-on-Hudson, NY 12033

Re: Inspection #1610874

Dear Mr. Schlatz,

An inspection of your workplace at 1835 U.S. 9 Castleton-on-Hudson, NY 12033, beginning on August 1, 2022, was conducted pursuant to a referral filed with the Albany Area Office. The referral alleged the following with respect to ergonomics:

- Workers suffer from musculoskeletal injuries as a result of lifting heavy items while attempting to meet pace of work and production quotas.
- Staffers at Amazon's on-site first-aid clinic ("AmCare") question whether workers are actually injured, pressure injured workers to work through their injuries, and steer injured workers to Amazon-preferred doctors.

The investigation included: (1) a review of OSHA 300, 300A, and 301 injury and illness recordkeeping forms for the years since the facility started operation until the date of the inspection, (2) private employee interviews, (3) management interviews, (4) review of your company's overall ergonomic hazard control efforts, (5) review of employee medical documents including first aid logs and treatment logs, and (6) analysis of work performed in several inbound and outbound process paths, video of employees performing tasks in several inbound and outbound process paths, and analysis of ergonomic risk factors using the revised NIOSH lift equation<sup>1</sup>.

## **Findings**

Based on the review of the injury and illness information, interviews with employees, and ergonomic risk assessments, employees are exposed to a high risk of serious

<sup>&</sup>lt;sup>1</sup> Applications Manual for the Revised NIOSH Lifting Equation, <a href="https://www.dir.ca.gov/dosh/dosh-publications/mmh.pdf">https://www.dir.ca.gov/dosh/dosh-publications/mmh.pdf</a>.

musculoskeletal disorders (MSDs) when routinely working in the following process paths:

	Back Risk Evaluation Tool
Process Path	NIOSH Lift Equation
Decant/ Receive	2.6 CLI
	Red indicates a high risk for musculoskeletal disorders based on the score of the risk evaluation tool

Employees working in the Decant process path are required to frequently bend and perform long reaches to the back of the cage, when placing packages/items in the cages exposing them to an increased risk of low back injuries. Additionally, employees handle packages/items weighing up to 34 lbs., with 27.3% of the packages/items weighing more than 25 lbs., based on a sample size of packages/items weighed on site during inspection.

This hazard alert letter identifies a process path with a high level of ergonomic risk that is in addition to the process paths that OSHA has recently listed in the 5(a)(1) violation (Pack, Sort (ship dock cell and sort areas), Fluid Load/Ship Dock Loader, and Receive Dock Unload/Fluid Unload). While some ergonomic risk factors can be reduced or eliminated by implementing a single means of abatement, in most cases a process will provide the most effective method for addressing the risk factors. Amazon recognizes feasible mitigation strategies, including, but not limited to those outlined in the NIOSH guidance on Elements of Ergonomics Programs, as evidenced by inclusion of those and many other methods in the Amazon document North American WHS Ergonomics Procedure North America, Published: March 20th, 2020, Effective: March 20th, 2020. Elements of an effective ergonomics program include, but are not limited to the following:

- 1. Worksite analysis to recognize and identify existing manual handling hazards in the workplace and develop an effective ergonomics program. Conduct an ergonomic assessment by a certified professional ergonomist, or other qualified professional. An analysis should include an assessment with validated methods (i.e., NIOSH lifting equation, the lumbar motion monitor, ACGIH TLV for Hand Activity and Upper Limb Localize Fatigue) or other validated ergonomic risk assessment methods for manual handling tasks. and employee participation (e.g., surveys, interviews). Periodic ergonomic surveys of employees and risk assessment of process paths in the workplace should be conducted at appropriate intervals or when changes to the work may change the ergonomic risk, to evaluate effectiveness of controls.
- 2. Training and education for exposed employees, including methods to evaluate the effectiveness of the training. Re-training should be done annually, or as operations change. Training should be done in a manner understandable by all employees (in a language that they speak) and address hazards associated with the work they perform, early recognition of musculoskeletal injuries and illnesses, the ergonomic risk factors associated with their job(s), and how to prevent MSDs. The training should include the elements of the ergonomics program and the affected employee's role in the program. Training should also be provided to operations area managers and process

assistants as well as First Aid staff. The supervisors' training program should allow recognition of ergonomic risk factors, early signs of MSDs, and how to respond when risk factors are observed or when symptoms are reported. The training program should include the establishment's health care providers to ensure they are able to recognize symptoms of MSDs and are familiar with appropriate protocols for treatment of MSDs. Educational material or training on ergonomics should be provided to people responsible for designing jobs and buying equipment, tools, workstations, and parts.

- 3. Hazard prevention and control that includes the identification of paths with ergonomic risk factors and engineering, administrative, and work practice controls to materially reduce the hazard.
  - a. Engineering controls are designed by a certified professional ergonomist or other qualified professional and may include workstation redesign, tool and handle redesign, and use of mechanical lifting aids. The goal should be to make the job fit the person.
  - b. Administrative controls are implemented which reduce the duration, frequency, and severity of exposure to ergonomic risk factors. These controls may include job rotations that reduce ergonomic risk, reduction of repetitions, multiple person lifts, and maintenance of related equipment.
  - c. Work practice controls are implemented which include work techniques, new employee conditioning, and reduction of weight lifted.

The following engineering, administrative and work practice controls are feasible and will materially reduce the hazard at this workplace:

## Process Path: Decant

- Worktables should allow for the low effort sliding of packages from the conveyor to the worktables using a low friction sloped surface to eliminate lifting.
- Small individual items and packages should be packed into reusable boxes or totes prior to loading into cages to eliminate repeated positioning of such items when loose-packed in cages.
- When decanting from a pallet, use a vacuum lift and an adjustable height, rotating pallet scissor lift to reduce bending when moving packages.
- 4. Medical management- Implement protocols developed and reviewed by physicians with training in occupational medicine, to include early recognition, evaluation, management of first aid cases, medical referral, and accurate recordkeeping of MSDs. Identify injury trends for action and include periodic evaluation of the medical management program. Ensure healthcare, including first aid providers work within the scope of their license.
- 5. Program evaluation The elements of the ergonomics program; management leadership, employee participation, training, hazard identification and control, and medical management should be evaluated periodically (at least annually) to compare the ergonomics program policies and goals to the practices at the site.

6. Personnel responsible for OSHA recordkeeping must be trained in the requirements of OSHA recordkeeping. The entries on the OSHA 300 and 301 forms should be periodically verified by a knowledgeable person.

To evaluate your efforts in reducing these hazards, please send me a letter detailing the actions you have taken, or plan to institute, to address our concerns within 60 days of the date of this correspondence. We will review your response and determine if a follow up is needed to further evaluate your workplace, including any recommended/implemented controls. Under OSHA's current investigation procedures, we may visit your work site within six months to examine the conditions noted above. Enclosed is a list of available resources that may be of assistance to you in preventing work-related injuries and illnesses in your workplace.

Thank you in advance for your attention to these concerns. Working together, we can move closer to achieving the goal of workplaces free of preventable hazards. If you have any questions, please feel free to contact the Area Office at 518-464-4338.

Rita Young, MS Area Director

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cc:

## **RESOURCES**

OSHA 3220 Pocket guide, Worker Safety Series, Warehousing, <a href="https://www.osha.gov/sites/default/files/publications/3220">https://www.osha.gov/sites/default/files/publications/3220</a> Warehouse.pdf

NIOSH Elements of Ergonomics Programs, www.cdc.gov/niosh/topics/ergonomics/ergoprimer/default.html

Applications Manual for the Revised NIOSH Lifting Equation, https://www.cdc.gov/niosh/docs/94-110/default.html

CAL/OSHA Ergonomics Guidelines for Manual Material Handling, <a href="https://www.dir.ca.gov/dosh/dosh\_publications/mmh.pdf">https://www.dir.ca.gov/dosh/dosh\_publications/mmh.pdf</a>

2021 Threshold Limit Values (TLVs®) and Biological Exposure Indices (BEIs®) of the American Conference of Governmental Industrial Hygienists (ACGIH®), <a href="https://www.acgih.org/TLV/">https://www.acgih.org/TLV/</a>.